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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The Journal Year Closes with this issue, and Volume XLIII is complete. The shades of Janus again drift through the editorial offices, one face turned to examine the products of the past twelve months of activity, the other face turned to see what the future might have in store.

The backward look is sometimes helpful, particularly if it carries with it an eye cocked to note areas in which improvement might be made as well as points which might indicate a job well done. In looking through Volume XLIII of the JOURNAL, the editors find items which might have been better, errors which should have been avoided, and the hint of innovations which, if carried out, might have made the JOURNAL more attractive and useful. They also find evidence of efforts to improve the appearance of the JOURNAL in slight, hardly noticeable ways which finally bring good results; several attempts to group material so as to make it more valuable; and a general standard in content and appearance which brings hope that the physicians of Texas will not be too disappointed in the publication which belongs to them.

During the past twelve months the shortage of paper eased only slightly. The twelve issues of this volume contain a total of 1,662 pages, 10 pages more than Volume XLII, which totaled 1,652 pages. Again it was impossible to include all the acceptable original articles which were available, but 107 articles were published in comparison with 91 in the preceding volume, 406 pages in comparison with 315. Editorial pages in the volume just ending numbered 81 in comparison with 89 in the preceding volume. Miscellaneous material filled 329 pages in the volume just ending, 336 in the preceding volume. Advertising pages in Volume XLIII numbered 846, in Volume XLII, 896.

Publication of the TEXAS STATE JOURNAL OF MEDICINE is a big business in itself. During the fiscal year 1947, it was more than a $50,000 business, with advertisers paying roughly 70 per cent of the expenses and revenue from subscriptions, including those from membership dues, paying roughly 30 per cent. With an average circulation per issue of 5,826, each copy cost approximately 72.3 cents for printing, distribution, salaries, and administrative expense. The expenses of the JOURNAL for the twelve months of the fiscal year 1947 increased approximately one-third over the expenses of the twelve months of the fiscal year 1945-1946, while the income for the period was only about one-fourth larger. The result is a considerably smaller surplus. As a matter of fact, the JOURNAL now is operating on a comparatively narrow margin of surplus, but there is the satisfaction that during the war years when almost every publication found it necessary to raise its subscription and advertising rates, sometimes more than once, the JOURNAL has managed to hold its own with the same subscription rates which have been charged since May, 1927, and the same advertising rates which have been in force since the year 1938-1939. Holding the line has been made possible only through the

cooperation of the Stafford-Lowdon Company of Fort Worth, which has printed the JOURNAL for many years.

The past twelve months have brought for the second year in succession a change in the editorial staff of the JOURNAL. Dr. Harold M. Williams, Fort Worth, joined the staff July 1 when he was appointed assistant secretary-editor to succeed the late Dr. R. B. Anderson. When the position of secretary-editor became vacant, Dr. Williams was elevated to that post, which he now holds. The death on December 4 of Dr. Holman Taylor, who had been editor of the JOURNAL since 1910, brought to a close an era in the life of the JOURNAL just as it did to the entire life of the State Medical Association of Texas. Physicians who have followed the JOURNAL for years will miss the individuality of thought and style which immediately proclaimed that an editorial was "By Holman Taylor" even though the by-line was not printed.

Now for the forward look.

The future seems to hold promise. The paper shortage is apparently being relieved to some degree, which should make it possible to print more of the fine original articles which are being submitted in large number. Let it be said, however, that the millenium is not at hand, and because of a backlog of articles already on hand, the need to hold costs to a reasonable level, and other important factors, space cannot be guaranteed for the publication of all the worthwhile contributions which members of the Association and other physicians may submit.

It may be that a leveling off of advertising income and an ever rising curve of expense will necessitate a readjustment of subscription and advertising rates. That is a possibility which the staff of the JOURNAL does not contemplate with any more pleasure than the advertisers and subscribers, but it is a possibility which cannot be completely ignored.

The content and makeup of the JOURNAL is of course subject to improvement, and the editors hope to work always with that improvement in mind. They solicit the constructive criticism of those who read the publication, or of those who should read it.

One change which everybody concerned believes will be helpful and which has been authorized by the Board of Trustees, acting as the Board of Publications, is for the JOURNAL year to begin with the January issue instead of with the May issue. Volume XLIV will consist of only eight issues, and beginning with January, 1949, the JOURNAL year will coincide with the calendar year and the Association's fiscal and membership years. This revision will be made without hardship to subscribers or advertisers.

As the current volume ends, attention should be called again to the service available to subscribers who wish to bind the JOURNAL for permanent filing. If a set of unbound JOURNALS is sent to the central office of the Association before May 10, it will be bound in red morocco with gilt lettering at the same rate charged to the central office, probably about $3 per volume. Missing copies can be supplied only at the usual rates for back copies and only if reserves are sufficiently large.

Another Guest for the 1948 Annual Session was announced after the March issue of the JOURNAL went to press with the program. Dr. Andrew B. Rivers, Rochester, Minn., a member of the Mayo Clinic staff, will participate in the program of the Section on Medicine. Dr. Rivers generously agreed to come to Texas to replace Dr. Edgar V. Allen, formerly of the Mayo Clinic and more recently of the Cleveland Clinic, Cleveland, Ohio, who was forced by illness to cancel his plans to be at the annual session.

The dates for the annual session, April 26-29, are so close at hand that there is hardly time to do more than wish that each physician who comes to Houston will find an unusually helpful series of scientific papers and exhibits, and a relaxing and enjoyable period of fellowship with his colleagues.

There are two suggestions which are recommended for each registrant at the session: (1) Studying the program will help the physician find out what he wants to see and hear, and when and where to find it. (2) Notifying the Information Bureau where he may be found at all times will expedite the handling of emergency messages which the physician may receive while he is in Houston.

As this JOURNAL goes to press, arrangements for the annual session are almost complete. Those who have helped with these arrangements have put much time and effort into their planning and in working out details. They believe the 1948 annual session will be one of the best the State Medical Association has ever had.

Three Changes in the Official Family have occurred since January, when the latest editorial mention was made of such matters. All three of the new appointments are to fill terms of office which expire at the 1948 annual session.

have been filled with new men. Dr. R. B. G.

Two positions in the Board of Councilors Cowper, Big Spring, was appointed councilor of the Second District on February 22 to succeed Dr. A. H. Fortner, Sweetwater, who had resigned. Dr. L. C. Powell, Beaumont, was appointed to fill the vacancy created by the death on March 9 of Dr. A. E. Sweatland, Lufkin, in the Tenth District.

Dr. B. E. Pickett, Jr., Crystal City, has been appointed to fill the vacancy created in the membership of the Council on Medical Defense by the resignation December 22 of Dr. W. D. Jones, Dallas. As announced previously, Dr. L. B. Jackson, San Antonio, who was already a member, was named chairman of the Council, a position which Dr. Jones had held for many years.

The Service of a Physician at Night is something which the lay public expects, justifiably or not. Difficulty in obtaining such service in various communities throughout the nation has been reflected in numerous complaints to the American Medical Association, which took cognizance of the situation in an editorial in the March 6 issue of *The Journal of the A. M. A.*, pointing out that this is one area of activity in which the relationship of patient to physician can rapidly become strained. Patients who believe their needs are not being met during the night hours may reflect their disfavor in a growing dissatisfaction with present methods of medical service and may actually agitate for government medicine.

The American Medical Association has suggested that the friendly relationship of the lay public to doctors of medicine may be strengthened in urban centers by simple measures designed to make a physician readily available at any time. Most cities already have a physicians' telephone exchange which helps to locate doctors who cannot be reached immediately through their own telephones. By furnishing such an exchange with a list of physicians who are willing and able to accept night calls and publicizing this service to the public, the situation can be handled to the satisfaction of all. If no central physicians' exchange is in operation or seems advisable, a hospital can perhaps be prevailed upon to serve as a night clearing house for calls.

County medical societies in Texas are urged to consider the matter of night calls and the need for working out some such arrangement as suggested above. It is true that physicians need rest and that many night calls are unnecessary. But it is also true that a frightened and uncomfortable patient will appreciate the cooperation of the physicians in his community who provide him with the assurance of an available doctor whenever he wants one. This service is one step toward establishment and maintenance of the good will which the medical profession needs so badly today.

"The Physician Meets the Public," a manual of medical public relations prepared by the Committee on Public Relations of the State Medical Association, has recently been distributed to each county medical society in Texas. The attractive booklet is appropriately named, for in it is explained the importance of every meeting of the physician with the public, whether the physician be the "Old Doc" in the office over the corner drug or "American Medicine," whether the public be Mrs. Jones across the street whose Jimmy broke his arm or "John Q. Public." Also included are many suggestions as to how these meetings of physician and public can be made to increase the friendly relations and good will which are increasingly important to both.

The manual, prepared by the Committee on Public Relations in cooperation with Watson Associates, is believed to be the first handbook of public relations techniques to be prepared by a state medical association for the use of county medical societies. It points out that "Though the public still depends on its doctors of medicine implicitly, we as their doctors are losing their sympathy and support because we as a group have failed in the public relations phase of our work. . . No amount of money spent for advertising and publicity—and ours is a mild expenditure compared with some state associations — can build public confidence and public support in face of organized opposition, unless we practice good public relations in our every day life, unless we recognize that everything we do and say represents the medical profession in the eyes of the public."

An explanation of the problem confronting physicians, of the criticisms which have been leveled against the profession, and of what can be done to meet the challenges facing doctors of medicine is contained in the manual. The place of the Committee on Public Relations of the State Medical Association and the functions which local committees on public relations should assume in each county medical society are stated. Definite goals which can be achieved and specific methods and procedures for reaching them are outlined. The result is a concise, positive program of activity which has been approved by the Board of Trustees of the State Medical Association and which is commended to

each county medical society and auxiliary.

Presidents and secretaries of societies and auxiliaries and members of public relations and publicity committees will profit most from studying "The Physician Meets the Public," but the material included in the booklet might well be read by each member of every society and auxiliary. Copies have not been distributed to the entire membership of the State Medical Association, but county society presidents, district councilors, and certain other officers of the Association will be pleased to lend their copies to interested members.

Members of the Committee on Public Relations and their advisers have worked diligently to prepare a helpful manual, and it appears that they have been successful. But, as Dr. Truman C. Terrell, chairman of the Board of Trustees, so ably states in the introduction, however sound and intelligent the plan presented, "without the concerted and continued effort of every member of the State Medical Association and the Auxiliary there can be no appreciable results—and nothing counts except results."

United States Savings Bonds drives were carried on several times during recent years to help win the war; now a drive is under way to help win the peace. While the war was in progress, the federal government needed funds to finance its military operations, and most citizens were happy to cooperate in caring for this urgent need. Now, the country faces a need which some thinking people consider almost more urgent than that brought by the war emergency.

To help maintain a workable economy that can weather the insanities of inflation and the confusions of depression the federal government is now encouraging its citizenry to put into savings some of the money which would otherwise be spent on hard-to-get, high-priced commodities. In this way inflation will be discouraged, and when times get harder the money set aside now will be available to pay for products which must be bought to keep industry and agriculture in operation.

It is hardly necessary to point out that government bonds are good investments, aside from the economic considerations which make their purchase almost obligatory. A Series E bond received in exchange for $75 now will bring back $100 in ten years, and the government has all the resources of the country behind it to guarantee that payment.

Citizens interested in their own welfare and in the welfare of this country will buy U. S. Savings Bonds during the Security Drive which the Treasury Department is conducting from April 15 through June 30, and when the drive is over, they will continue to buy bonds. Bonds can help bring personal and national security, and security is one thing which every person in the world today cherishes.

CURRENT EDITORIAL COMMENT*

Geriatrics in General Practice. — Geriatrics is a word coined to emphasize the increasing importance of promoting the health of the person past middle life. Those who practice geriatrics are interested largely in persons over 40 years of age; their major objective is the prevention of illness and promotion of health in persons in the older age groups, rather than the therapy of degenerative disease. There is one important fallacy in this point of view. The aging process begins not at 40, but as soon as a person reaches maturity; in fact, it begins at or before birth. Thus geriatrics, if it is to prevent the degenerative processes, must begin its influence at 2 years of age or even earlier.

One concept of age is that it is a result of the inevitable changes in body tissues and body fluids which are produced by the destructive processes incident to years of active life. The other conception is that old age is a biologic phenomenon. Life begins at conception, and there then occurs an orderly and normal sequence of tissue development and growth, maturation, and finally senescence. Under this latter concept, a person who has lived a normal life should advance to and through each successive level of development with an enhancement of adjustment to his life environment, and with increasing life enjoyment, which would end with the consummation of old age as the fullest expression of his life experience.

If this ideal is to be approximated in old age, the chief objective of the physician in the field of geriatrics is to assist his patients to prevent those situations which lead to premature aging, and to aid them to create a life pattern suitable for their capacities, needs, and interest. He must help them to avoid or to ameliorate those destructive conditions that produce prematurely a permanent injury to the organs that are essential to body function. This result can be achieved best if the physician becomes a family adviser who begins his contact with his patients in the prenatal period and fol-

*This department of the JOURNAL presents editorial comments on current items pertaining to the science, art and practice of medicine, contributed by members of the State Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the State Medical Association of Texas to submit such discussions for this department. The discussions should not be more than 500 words in length.

lows them throughout life, with a close, personalized, individualized medical service.

A community-wide policy of annual physical examinations of presumably healthy persons, particularly those who have passed their fortieth birthday, has been advocated for many years in an attempt to make preventive medicine operative. The purpose of regular examinations is fourfold: (1) analysis of the health status of the patient and the probable effects of his previous life on physical and mental health, (2) extension of hygienic advice, (3) determination of the capacities and limitations in the patient's occupation, and (4) prompt correction of remedial defects, including the application of such control therapy as may be indicated. The effectiveness of such examinations depends upon the comprehensiveness of the data obtained, and upon the wisdom of the medical adviser. The essence of such checks is individualization. It is here that physicians in private practice can render great aid to preventive medicine.

In order to increase the acceptance of regular check-ups it has been suggested that instead of "periodic examination" the term "health inventory" be employed. This word suggests to laymen a relatively careful and deliberate procedure, and their response to its use has already been encouraging. Basically, however, the need for such inventories must be conveyed to laymen through all possible means of health education.

The private practitioner is, of course, in a position to educate his patients. His frequent failure to do so may be ascribed in part to a reluctance to urge an apparent extension of his own services, but is primarily a result of his background. Trained to seek out and treat disease, he finds it difficult to shift the emphasis of his service. The remedy lies in greater emphasis upon the teaching of preventive medicine in the medical schools.

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RARE GRAFT OPERATION

A rare case in which part of a man's ear-flap was successfuly transplanted from one ear to another is reported in the October 1947, *Archives of Otolaryngology*, by Alfred Wachsberger, M. D., Sacramento, Calif.

The patient had received an accidental injury to his left ear twelve years before which resulted in a defect of the ear-flap. Both ears being proportionately large, a graft was taken from the normal ear to repair the defect, since the left ear would also have to be reduced in size in the course of the operation.

ORIGINAL ARTICLES

MANAGEMENT OF ORAL INFECTION IN RELATION TO SOMATIC DISEASE

J. J. ADDISON, M. D., D. D. S.
and
J. Y. REED, D. D. S.
DALLAS, TEXAS

Oral sepsis constitutes one of the most prevalent diseases of man. Diseases of the periodontium or supporting tissues of the teeth involve the greater portion of oral sepsis. Many investigators consider it even more frequent than dental caries. Focal sepsis may produce a general state of invalidism characterized by general lassitude, headache, mental depression, neuromuscular and articular pains, febrile attacks, malnutrition, and anemia. It may produce definite lesions by causing leukoplakia and by constant irritation, malignant degeneration in and about the buccal cavity. It has been found to extend into the sinuses, middle ear, pharynx, and salivary and lymph glands. It may cause chronic myocardial disease with various functional disturbances of the heart. Many deaths attributed to heart disease and vessel rupture could be due to the weakening influence of a focus of oral infection acting over a long period of time.

In the skeletal and muscular systems, the importance of the etiologic connection between oral infection and muscular and articular rheumatism has been stressed by medical writers, although there is considerable difference of opinion regarding the role of infection in the senile and hypertrophic type of arthritis. There is, however, more general accord concerning the role of infection in the atrophic type. Arthritis and myositis are named as the most common focal infection diseases of this group.

Mouth infection may reach the brain through the cavernous sinus route. Cotton has stressed the incidence of oral and tonsillar infection among the insane and the gratifying improvements produced by the elimination of these foci. Neuritis and various types of neuralgias could result from oral sepsis (pulp and periodontal inflammation). Of the focal infection diseases of the nervous system, epilepsy, neuralgia, nervous and mental exhaustion, manic-depressive psychosis and dementia praecox may be listed among the most common diseases.

Diseases of the ear may be produced by infection extending through the pharynx and the eustachian tube; also, by toxic irritation or elective localization, in the auditory nerve

or the middle ear. Pain may be referred to the aural region from inflammatory conditions associated with pulpitis, traumatic occlusion, and temporomandibular joint irritations. Retromolar inflammations commonly refer pain to the region of the ear. Otalgia, tinnitus, toxic neuritis, labyrinthitis, and vertigo may be listed as the most common focal infection diseases of the ear.

Infection carried through the blood or lymphatics by bacteria or their exo-toxins and by direct extension into the orbit may bring about disease of the eye. Lesions of the eye associated with exudation (corneal abscess and so forth) are usually due to actual localization of organisms while milder manifestations (iritis, conjunctivitis, and so forth) may be due to their toxins. Referred pains in the orbital region may be due to irritations of the trigeminal and sympathetic nerves from tooth impactions, traumatic occlusion, and irritated pulps.

In regard to cancer, trauma may play an important part in the production of malignancy in the mouth. Sharp teeth, rough fillings, improperly contoured crowns, bridges, and poorly constructed dentures predispose to malignancy. Joseph Colt Bloodgood, speaking before the New York Institute of Clinical Oral Pathology, stated that he had never seen oral cancer in a clean, well kept mouth. Oral suppuration may affect not only the mouth and throat but the remainder of the alimentary tract as well through the ingestion of organisms and septic products from mouth foci. Many writers stress the subject of "pyorrhea-alimentary canal sequence" and offer statistical evidence that periodontal disease predisposes to ulcers and even cancer of the alimentary tract.

There is some difference of opinion as to the importance of oral foci of infection in the etiology of skin diseases, but a vast amount of literature has appeared on the subject to suggest the association of oral infection in skin lesions. Barber, in considering the relation of oral infection to diseases of the skin, stated that the problem divides itself into two phases: (1) the coincident surface infection of the mucous membrane of the mouth and nasopharynx and the factors responsible therefor, and (2) the secondary effects of such infections on the skin. These secondary effects are caused in the following ways: (a) by direct infection from the oral mucous membrane to the skin as in impetigo contagiosa; (b) by setting up an infective gastritis, thus causing a secondary infection of the gastro-intestinal tract. Sensitization of the skin to bacterial toxins from an oral focus, as in eczema; anaphylactic reactions due to systemic sensitization to bacterial proteins, as in urticaria; and inflammatory reactions in the skin as a result of bacterial toxins carried in the blood stream, as in erythema multiforme, are thought to be common.

Focal infection is considered to be of extreme importance in the production or accentuation of diseases of the heart and vascular structures. The common focal infection diseases of the circulatory system which occur most often are impaired function of the myocardium, endocarditis, pericarditis, septicemia, and pyemia.

The ingestion of bacteria and their toxic products from infected teeth and periodontal tissues has been looked upon as a direct inciting factor in the production of gastric ulcers and intestinal irritations. Anderson stressed the close relationship between mouth infections and bleeding ulcers and the fallacy of treating ulcers without first improving mouth health. Among the diseases of the gastro-intestinal tract thought to be caused by focal infections, subacute and acute gastritis, enteritis, appendicitis, cholecystitis, and duodenal ulcer are the most common.

Aspiration of infected material from chronic Vincent's infection, periodontal pockets, and infected open cavities has been held accountable for lung abscess and certain types of pneumonia. Franken showed that at the Lenox Hill Hospital the incidence of postoperative pneumonias was considerably reduced by preliminary prophylaxis of the teeth and mouth. The weakening influence due to the absorption of bacteria and their toxins over a long period of time could play an important role in the resistance, making a person more susceptible to the respiratory diseases such as infection of nasal accessory sinuses, asthma, bronchitis, pneumonias, and peritonsillar abscesses.

Periodontoclasia or paradentosis, commonly termed pyorrhea, is a disease process that causes a breaking down of the tissues surrounding the teeth. This condition usually begins as a mild inflammation of the gums. Gradually, the infection attacks the supporting tissue which surrounds the root of the tooth. If the condition is not corrected, it becomes worse, causing a so-called pyorrhea pocket to form along the side of the root. Food particles and bacteria enter the pocket, and the presence of these irritants aggravates the condition, resulting in a chronic infection which may seriously affect the general health.

It is doubtful that any one influence could, by itself, produce periodontal disease. A combination of factors which both lowers the

tissue resistance and acts upon this weakened tissue is necessary to establish disturbances of the periodontium. Most authorities divide the complex causes of periodontoclasia into two classes: local and systemic. Some of the local factors are various mechanical irritants, such as calculus (tartar), rough fillings, and impacted food; malocclusion caused by missing or crooked teeth; and relative disuse of the jaws and teeth in mastication. Some of the general or systemic causes are debilitating diseases, blood dyscrasias, endocrine dysfunction, pregnancy, allergies, drug idiosyncrasies, metallic poisonings, and psychosomatic factors. These are medical problems, requiring close cooperative treatment by the physician and the oral pathologist.

Pyorrhea, or any of the other diseases classed under the heading of periodontoclasia, cannot be cured by tooth pastes, mouth washes, or any spectacular medicine or surgery. Periodontoclasia is a curable disease in most instances, provided a well organized plan of treatment is not too long deferred. It has been the problem of the dental profession, and in the past many have been negligent in its presence or prone to disregard it with the thought that, as the disease cannot be cured, its presence might as well be ignored until such time as it becomes necessary to extract the teeth. This more or less prevalent prognosis still common among general practitioners of dentistry should be corrected. Periodontoclasia can be and is being cured, and once cured, the tissues can be maintained in a state of health provided proper care is exercised by both the patient and the dentist.

As with all diseases, the ideal time to treat periodontoclasia is in its incipiency or before it has reached the suppurating stage. At this time, a thorough prophylactic treatment, including the removal of all irritants, such as deposits on or between the teeth, faulty overhanging restorative work, and the correction of traumatic occlusion will correct the inflammatory reaction and allow the tissue again to become normal. If the early symptoms of periodontoclasia are overlooked and so allowed to go untreated, the disease progresses until, in the latter stages, there will be loosening with subsequent loss of teeth and even a general state of invalidism, due to absorption of bacterial toxins from the pockets surrounding the teeth. It is only when proper treatment has been long delayed and the disease allowed to progress until most of the supporting tissues have been destroyed from around the roots of the teeth that the disease is incurable.

ORAL EXAMINATION

Oral diagnosis is the recognition and differentiation of normal and abnormal conditions of the teeth and surrounding structures. A correct diagnosis is imperative before the prognosis can be given and proper treatment instituted, for diagnosis is the foundation of treatment. We believe that certain basic, diagnostic signs will be an aid to the physician in recognizing the presence of oral sepsis.

In taking a history, the physician should question the patient regarding any local or generalized pain, redness, swelling, or bleeding at the gum margins (gingiva), particularly at the time of mastication or brushing the teeth. Further questioning should concern loosening of teeth, impaction of food between teeth, drifting of teeth from their usual positions, evidence of clenching or gritting the teeth, a disagreeable odor of the breath, pus exuding from the gums, and a history of previous "gum boils." In conclusion, the patient should be questioned regarding any teeth that "have had the nerve removed" (root canal fillings), for such teeth are notoriously a menace to the general health.

During the physical examination, the physician has an opportunity to recognize in the mouth clinical manifestations of oral infection which are often overlooked completely. In examining the mouth, he should note any deviation from the normal pale pink color of the gums, which usually indicates inflammation of such areas. Further examination should involve the general form and surface appearance of the gums. In the normal mouth, the gum (gingiva) is light pink and is not glossy but has a dull, stippled appearance. Gum tissue fills the interproximal spaces (between the teeth) and continues in a smooth curve from one interproximal crest to the next. The marginal gingiva ends in a knife-like edge against

Fig. 1. Periodontal disease (pyorrhea) in areas indicated by arrows, showing thickening of marginal gingiva due to traumatic occlusion, edema, and recession.

the tooth. The free gingival margin hugs the tooth tightly and is not easily pulled away from its surface when a probe is passed under it. In peridontal lesions (pyorrhea), the gum margins will present one or more of the following symptoms: swelling, redness, and edema which gives the so-called "rolled" appearance (fig. 1). Along with the edema of the gum margin, there is frequently a glossy appearance (fig. 1). Evidence of pyorrhea may be further noted by a recession of the gum line which may give the tooth an elongated appearance (fig. 1). This is the result of destruction of underlying supporting bone (alveolus). A simple test for the physician to make is for mobility of the teeth. With the teeth held between the fingers or between two rigid instruments, motions to and from the tongue will determine any degree of movement. A noticeable movement in any of the teeth would suggest that there has been a loss of supporting bone (alveolus) structure from pyorrhea.

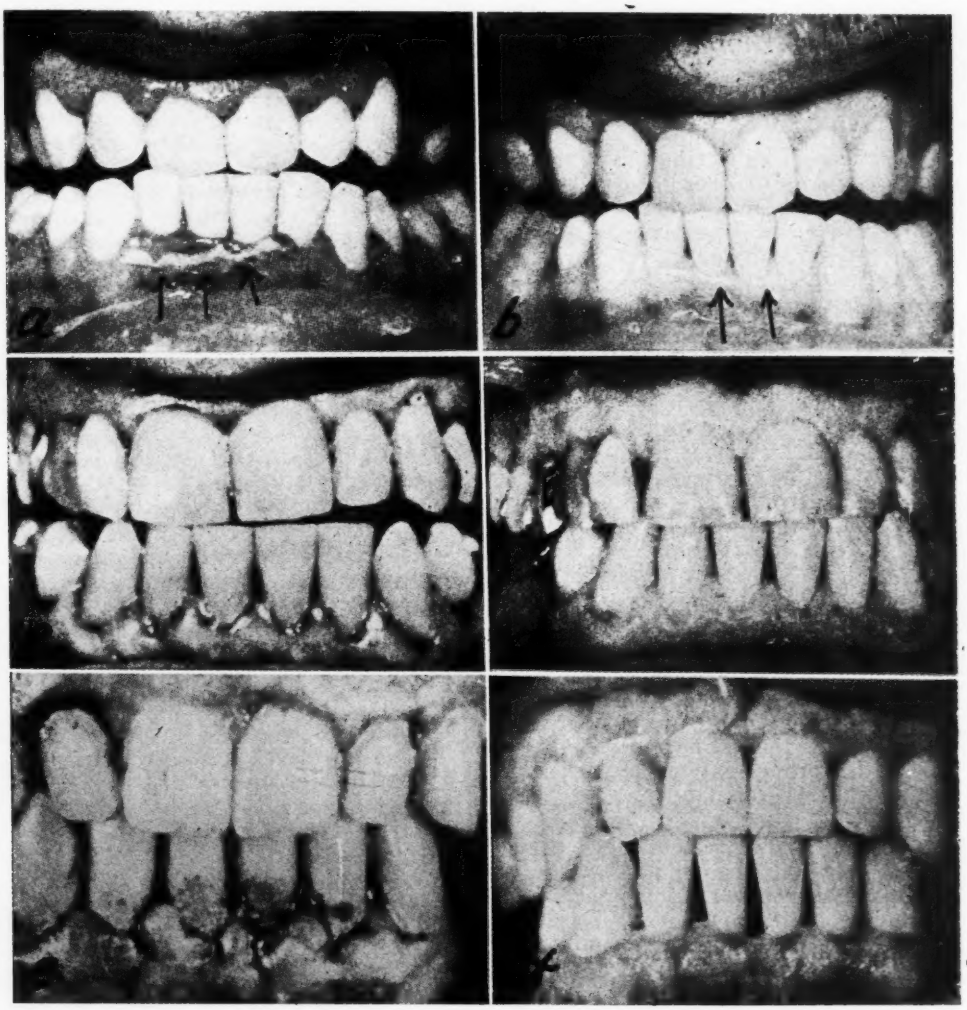

Fig. 2a. Periodontitis. Note bleeding and edema in the lower anterior region.
b. Same case as figure 2 six weeks after treatment. Note healing in the lower anterior region.
c. A 40-year-old man before treatment. Note gingival irritation, edematous tissue, and poor occlusal harmony.
d. The same case after treatment.
e. Periodontitis in a 29-year-old man before treatment.
f. The same case after an organized plan of treatment has been completed.

Changes in alignment of the teeth would be another helpful sign to notice. This includes crowding of the teeth, overlapping or twisting of individual teeth, or abnormal spacing, which often is a predisposing factor in the development of periodontal lesions

(pyorrhea). Such irregularities in alignment of teeth will invite traumatic occlusion between opposing teeth, as well as gum irritation from food impaction. Another etiologic factor in periodontal disease is the depositions of black stains and tartar (calculus) deposits on the teeth at the gum line (fig. 2e). This will suggest irritation or recession of the gum margin. Partially impacted third molars (wisdom teeth) present a problem because the chances of bacterial invasion and impaction of foreign matter are greater. A partially impacted wisdom tooth may be noticed by only a small portion of the tooth crown penetrating the gum in an angular position. A large cavity in the tooth is highly suggestive of possible periapical (root) abscess.

In oral examination the greatest diagnostic aid is thorough roentgenologic examination. In many instances it is the most important link in the chain of evidence which leads to diagnosis and frequently it also leads to discovery of the cause of the disease. When making a complete examination of any patient, the physician should include an oral examination by roentgen ray. The medical practitioner of today should be as interested as the oral pathologist in the roentgen examination of the jaws and teeth, since the interrelation of somatic disease and oral infections is so prevalent. Oral roentgen examinations should not be reserved for unusual conditions, but full mouth roentgenograms should be a routine aid in oral diagnosis. A patient suspected of oral foci of infection should have a full mouth roentgenogram which would demonstrate causes for foci of infection such as periodontal lesions (pyorrhea pockets), residual root tips, nonvital teeth, cysts, impacted teeth with attendant infections, neoplasms, and dental decay, which may not be detected on visual examination. These areas may reveal themselves as "cess pools" of infection which upon clinical examination apparently are innocent structures.

Recognition of the earliest symptoms of periodontal disease is indispensable to satisfactory treatment in that it safeguards the general health of the patient and prevents possible loss of teeth. Pyorrhea is apparent in the roentgenogram long before it can be found by visual examination, because the disease destroys the crest of bone filling the space between roots of adjacent teeth. Those entrusted with oral roentgenography should have a special knowledge of the normal anatomy of the parts examined; they should be familiar with all branches of oral pathology and should make it their particular study to learn how disease may change the radiability of the tissues.

TREATMENT OF ORAL SEPSIS

It is true that physicians have often been disappointed by the results in treatment of oral sepsis, and this important phase of therapy has frequently been discounted, even totally neglected.

A review of the literature reveals that the most worth-while articles on the subject of oral infection have been contributed by physicians. Charles H. Mayo was an advocate of the concept of oral infection, believing that oral sepsis played a great role in the production of somatic disease. It was he who challenged the dental profession by the statement, "The next great step in medical progress in the line of preventive medicine should be made by the dentist." Satisfactory management of the treatment of oral sepsis should be done with the coordination of a well-trained and competent periodontist and oral surgeon to obtain the best possible results.

Periodontal Phase of Treatment.—Even as recently as the turn of the century it was universally held and nearly as universally stated that periodontal disease (pyorrhea, as the disease was known) was incurable. Efforts at its treatment were made to be sure, and here and there operators like Riggs, Miller, McCall, and Good achieved considerable success in the treatment of their cases. The conquest of periodontal disease is to all intents an accomplished thing by competent, well trained periodontists. This disease, if not too far advanced, can be cured. Its treatment has been reduced from an empirical hodge-podge based on a welter of guess-work to an orderly procedure based on a well established foundation of accepted scientific information. Treatment in most cases consists of equilibration of occlusion, careful instrumentation, local medication, instruction in mouth care, toothbrush massage, and dietary advice. In addition to periodontal treatment, hopeless teeth that do not have sufficient supporting bone should be removed together with the infected supporting bone.

Equilibration of occlusion is conducive to health of the periodontium. Every tooth in the jaw is mechanically arranged to be able to tolerate normal forces. Each tooth or group of teeth is shaped to perform a definite function in the masticatory processes. When the occlusal force applied is in equilibrium with the resistant forces of the periodontium, a physiologic occlusion exists. However, a number of factors may upset

such an ideal relationship, leading in time to a pathologic condition. These disturbed relationships may result from purely local factors or through systemic disease. In either case, lowered resistance follows and periodontal disease ensues. Traumatic occlusion exists not only when injury has resulted, but also when there is a possibility that injury may result. Too often, as a result of misconceptions in the theory and practice of occlusal equilibration, occlusal grinding is criticized unjustly. It is obvious that the intelligent application of the principles of grinding of occlusion would presuppose just enough grinding, rather than too much. In grinding the occlusion the objective is to relieve traumatic occlusion and to establish better function. This is obtained in all functional relationships of teeth by (1) eliminating premature contacts, and (2) securing simultaneous contact so that the load may be distributed over as many teeth as possible. Often a tooth which seems to be in good relation in centric occlusion is subjected to strain when the jaw moves into an eccentric position. Sooner or later, it will show signs of traumatic occlusion, for it cannot alone perform functions intended for many more teeth. By grinding, an attempt is made to coordinate the occlusion, allowing more teeth to assume the load and creating a better masticatory apparatus.

Varying degrees of discomfort, including severe pain and other associated symptoms occurring in the region of the temporomandibular joint, are often the result of abnormal functional relationship of opposing natural teeth, or may be the effect of poorly constructed restorations, inlays, or fillings. There has been a definite relief of symptoms in patients suffering from neuralgia or referred pain of varying degrees by the correction of occlusal disharmony. Clinical experiences have shown that in many cases removal of the original focus cleared up a secondary condition.

A 40 year old man (fig. 2a) who had generalized rheumatoid arthritis with migratory joint pain and swelling of five years' duration "could not raise the left arm without great pain." Periodontic treatment was begun January 17, 1946. On completion of treatment (fig. 2b) February 20, the arthritis had been relieved with no recurrence. The patient can now raise the left arm above the head or rotate it without pain.

The importance of occlusal coordination is well exemplified in fig. 2c. Traumatic occlusion or occlusal disharmony is present and plays an important role in the etiology. It is evident that too much stress is on the central incisor teeth when the other teeth should share the force of mastication. After equilibration of occlusion is established more of the teeth will carry the load in the masticating force, thus lessening the trauma and lowered resistance of the supporting tissues (fig. 2d).

In fig. 2e, a septic mouth is transformed into a healthy one. Suppuration has ceased and the gingival tissue has assumed a healthy, pink color which is free from congestion. Periodontal pockets have healed with bone changes observed in a subsequent roentgen examination.

Surgical Phase of Treatment.—Simple extraction of teeth will not insure elimination of infection in the mouth and often such a procedure will invite an acute exacerbation of chronic foci of infection. Too frequently the patient examined months after the extraction of his teeth will show no clinical evidence of improvement in general health. Such results can be easily understood if it is realized that the supporting bone of the teeth may retain infection. This bone (alveolus) develops with the teeth; its function is to maintain the teeth for mastication. However, once the teeth are lost, this bone no longer has a function, and, like any nonfunctioning tissue, it may be subject to pathologic changes. Dr. William L. Shearer has contributed much to oral surgery by developing a surgical procedure for the removal of infected alveolar bone at the time of dental extraction. With such an outstanding surgical procedure, the patient soon shows clinical evidence of improvement, providing there are no other foci throughout the body.

Surgery of the mouth should be conducted with the same anatomic, physiologic, and pathologic considerations as surgery of any other part of the body. As nearly as possible, a sterile field should be used with adequate attention to the patient's general health and preoperative medication. After removal of the teeth, the mucoperiosteal tissue (gum flap) should be reflected on both sides so that the underlying bone will be well exposed. The alveolar bone should then be removed by means of bone rongeurs and files, leaving a smooth, well rounded ridge. Margins of the flaps of soft tissue should then be incised so as to unite in a straight line over the crest of the "ridge." Union is maintained by means of continuous horsehair sutures. The sutures may be removed a week later and the mouth should be ready for the mechanical restorative work that is to follow.

In conclusion, it should be called to the attention of the physician that he is often

considered by his patient to be the final authority on problems of oral pathology whether he realizes it or not.

SUMMARY

1. Pathology of the mouth is one branch of medicine that has been grossly neglected by both the dental and medical professions.

2. Many investigators consider oral sepsis to be more prevalent than dental caries.

3. The absorptive area of infection in the average case of pyorrhea, excluding periapical abscesses and other forces of oral sepsis, is equivalent to an area covering the palm of both hands.

4. Any complete physical examination should include recent roetgenograms of all teeth and supporting bone. Frequently such an examination will reveal impacted wisdom teeth, residual roots, and other forms of oral pathologic conditions even in edentulous patients.

5. Oral sepsis can be effectively managed with remarkable results to the patient's general health.

6. The physician is often considered by his patient as the final authority on problems of oral pathology whether he realizes it or not.

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CRUSADE FOR CHILDREN

The American Overseas Aid-United Nations Appeal for Children now underway to raise $60,000,000 to help feed the world's hungry children will reach its peak during the April 12-May 15 period. Contributions, which are deductible from federal income taxes, will go for medical care, medicines, food, clothing, shelter, rehabilitation, education, and training of workers in emergency fields. Twenty-six recognized agencies will distribute money raised in the campaign, administrative expenses of which will be less than 2 per cent. If no local campaign is being carried on, contributions may be sent directly to the American Overseas Aid-United Nations Appeal for Children, 39 Broadway, New York 6.

RADIOLOGY AS IT RELATES TO OBSTETRICS

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and
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The use of roentgen rays in the practice of obstetrics dates back to within a few years of their discovery by Roentgen in 1895. As far back as 1899, Albert attempted to measure the maternal pelvis roentgenographically; however, the general acceptance of such a method did not take place until the fourth decade of the present century.

Even though the practice of some obstetricians, as pointed out by Gelber, is toward the employment of routine roentgen examination, we do not believe that this is entirely necessary since in the majority of obstetric cases the relationship of the fetus both to itself and to its host is normal and requires no roentgenologic assistance in diagnosis. By the use of the usual obstetric diagnostic maneuvers and measurements the obstetrician can suspect which cases are abnormal and therefore need roentgenologic consultation. The earlier in pregnancy and surely the earlier in labor that abnormalities are exposed, the better is the maternal and fetal prognosis. Often hours of exhausting dystocia can be averted together with untoward fetal and maternal effects. As pointed out by Hunt, "The more the obstetrician keeps in mind the question, 'Can the roentgenologist help in this problem?' the greater will be the assistance obtained from the roentgenologic consultation."

The purpose of obstetric roentgenology is threefold: It attempts (1) to disclose facts concerning the fetus; (2) to determine the relationship of the fetus to the mother; and (3) to give information regarding the mother that may secondarily affect the fetus. DeLee and Greenhill have listed twenty indications for roentgen examination in pregnancy. The most important of these as selected by Gelber will be briefly discussed.

INDICATIONS FOR ROENTGEN EXAMINATION

To Diagnose Pregnancy.—It is theoretically possible to demonstrate the fetal skeleton about the seventh week of intrauterine life,[9] but practically, it is seldom possible to demonstrate the fetus roentgenologically before the fourteenth week. For this reason, hormonal tests are usually employed for the early diagnosis of pregnancy. Occasionally, however, roentgenographic evidence is demanded

Read before the Section on Obstetrics and Gynecology, State Medical Association of Texas, Annual Session, Dallas, May 7, 1947.

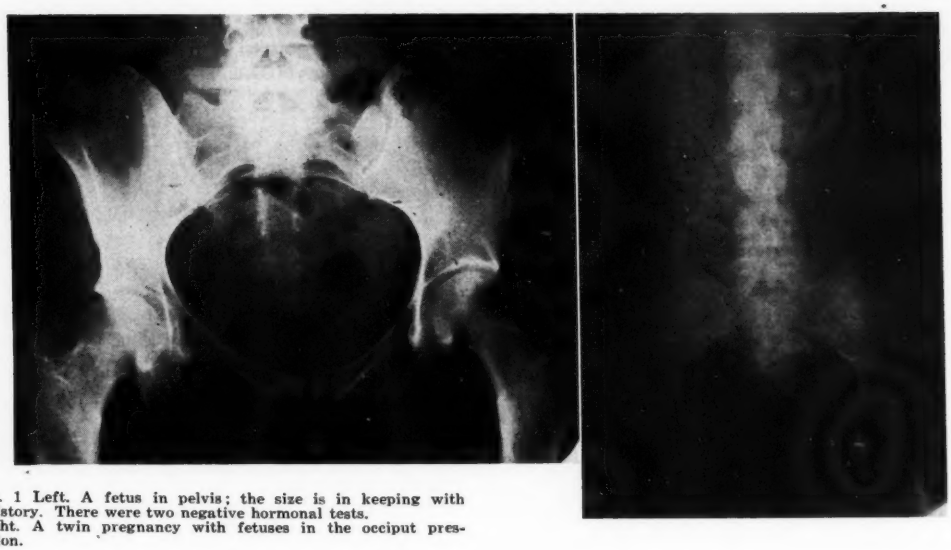

Fig. 1 Left. A fetus in pelvis; the size is in keeping with the history. There were two negative hormonal tests.
Right. A twin pregnancy with fetuses in the occiput presentation.

in court to differentiate between a pregnant uterus and a pelvic tumor or between pregnancy and pseudocyesis. Another instance of the value of roentgenography is in patients with fibroid tumors of the uterus who may also be pregnant. Positive roentgenograms offer complete and incontestable evidence (Fig. 1, left).

To Detect Multiple Pregnancies.—When patients present themselves with uterine enlargements greater than indicated by their histories, roentgenologic examination is indicated to rule out multiple pregnancy. This is done more accurately in the last trimester (fig. 1, right), but it is possible to determine the number of fetuses present as soon as the fetal skeleton can be demonstrated. A nonviable or papyraceous fetus should be kept in mind and such a fetal skeleton will be much smaller than that of the viable twin. This is important because such a fetus may obstruct or delay the delivery of its living counterpart.

To Verify Fetal Death.—Roentgenologic determination of fetal death cannot be reliably demonstrated for approximately four to five days after death occurs. Schmitter, Hodges, and Whitacre have listed five signs which in their opinion may be indicative of fetal death. These are lordosis or angula-

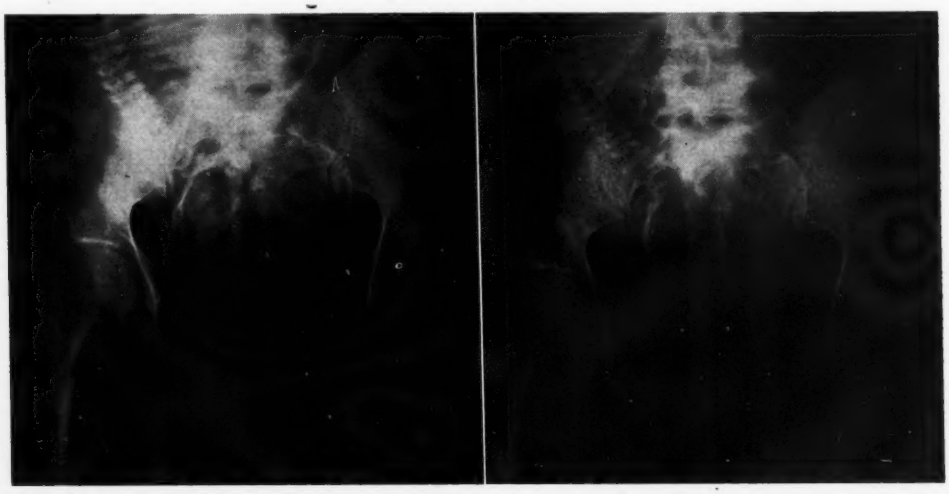

Fig. 2. Roentgenograms showing evidence of fetal death.
Left. A normal roentgenogram.

Right. A roentgenogram made four days later showing definite changes and overlapping in the cranial bones. A dead fetus was delivered two days after the last roentgenogram.

Fig. 3. Transverse position with a foot presenting. Anteroposterior and lateral views.

tions of the spinal column, collapse of the thoracic cage, lack of evidence of growth of the fetus from a study of serial roentgenograms, disproportion between the size of the fetus and the expected size, and decalcification of the fetal skeleton. The most reliable of these signs, provided the mother is not in labor, is the overlapping of the bones of the skull (fig. 2).

To Visualize Malpresentations of the Fetus.—The relationship of the long axis of the fetus to the long axis of the mother is known as the presentation. Of the three positions described, Stander stated that the longitudinal variety is present in more than 99 per cent of all cases in which the fetus reaches full term. These presentations are easily demonstrated by making the routine anteroposterior and lateral roentgenograms (fig. 3).

To Determine the Age of the Fetus.—This may be of considerable importance when it is difficult to obtain an accurate menstrual history. This is especially true in those cases in which termination of the pregnancy is contemplated, but it is desired to obtain a viable infant. Roentgenologic methods for determining the age of the fetus depend either on the recognition of signs of maturity in the fetal skeleton or on measurement of the

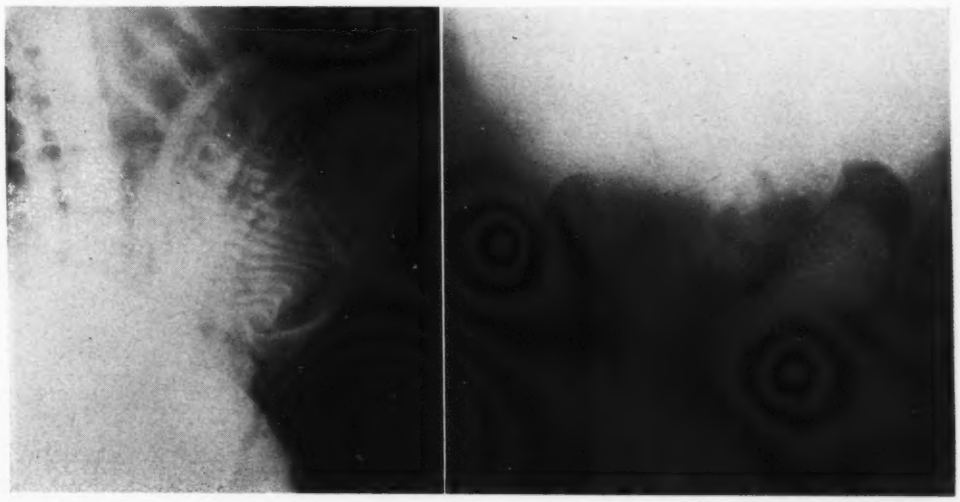

Fig. 4. Left. Routine placenta roentgenogram showing low implantation on the anterior wall of the uterus, suggesting marginal placenta previa. Lateral view.

Right. Marginal placenta previa verified with a cystogram. Anteroposterior view.

roentgenographic image of the fetus. For this latter estimation, graphs have been prepared by Hodges.

To Detect Fetal Abnormalities.—In many instances the roentgenologist can be of great aid to the obstetrician in the early recognition of fetal abnormalities or monstrosities. Since the incidence of malformations is greater in the presence of hydramnion than in its absence, all such patients should have roentgen examinations. Some of the roentgenologically recognized deformities are hydrocephalus, anencephalus, spina-bifida, osteogenesis emperfecta, osteopetrosis, achondroplasia, congenital syphilis, and erythroblastosis fetalis. It is important to keep in mind the question of fetal hydrocephalus and to rule it out before labor begins.

To Determine the Size and Shape of the Maternal Pelvis and Coordinate This with the Baby's Head Size and Study Mechanism of of Labor.—As Good[9] pointed out, it would be just as ideal for every woman who plans to bear a child to obtain a roentgenographic record of the size and shape of her pelvis as it would be for every person suffering from

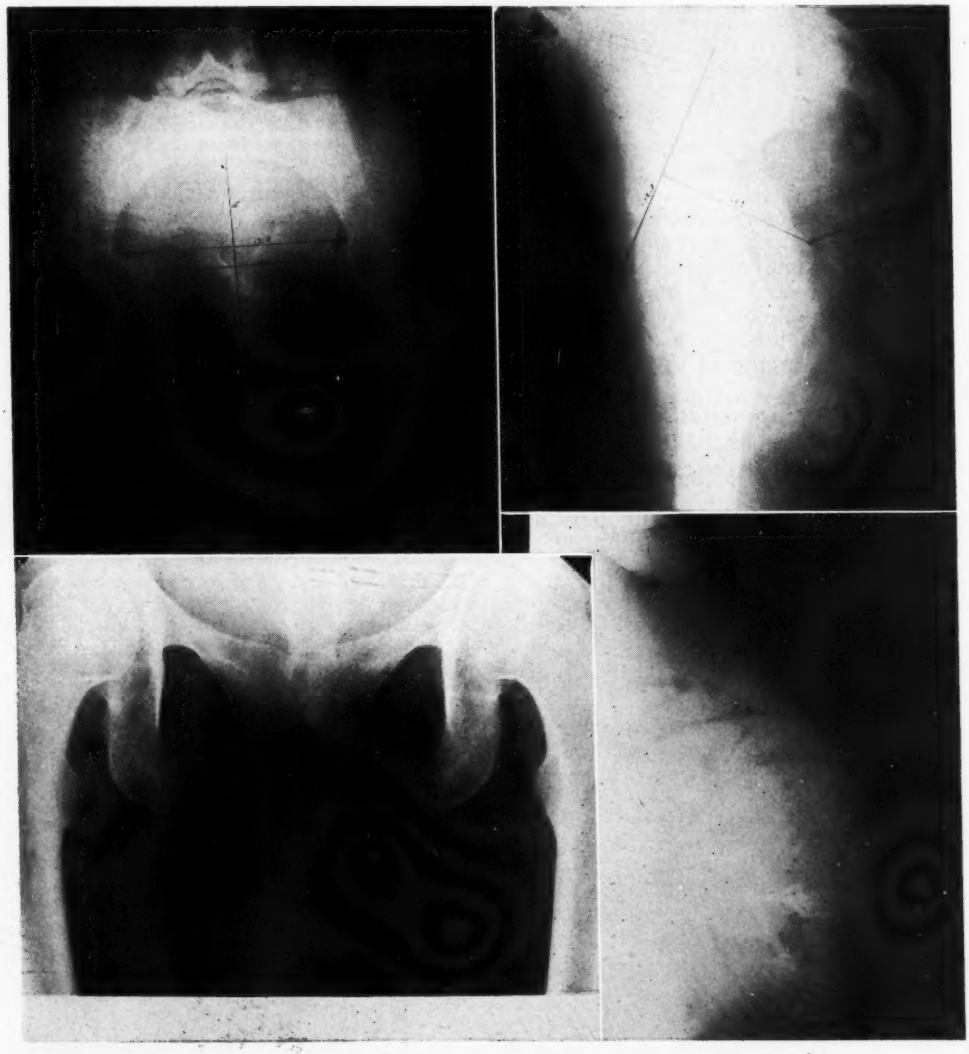

Fig. 5. Routine roentgen survey.
Upper left. Anthropoid type pelvis with normal size inlet. An anomaly in the region of the left acetabulum produces a minimal interspinous diameter.
Upper right. The lateral view shows the normal shape and size of the pelvis with a breech presenting fetus.
Lower left. A normal subpubic arch.
Lower right. An upright lateral view of the abdomen reveals the fetal head in the dome of the uterus, with hands above the head. The placenta is seen on the posterior wall of the upper segment of the uterus.

a pulmonary disorder to be subject to roentgenologic examination of the thorax or for every person who has had a gastro-intestinal disease to have the alimentary tract examined roentgenographically. Since this is not possible, it is well to recognize the more important indications for roentgenologic pelvimetry. Briefly these may be listed as follows: (1) when the clinical examination suggests an abnormality in the size or shape of the pelvis; (2) in all cases where history reveals a previous dystocia, especially when accompanied by fetal death; (3) when the obstetrician cannot make a satisfactory examination because of either precautions of asepsis when the patient has presented herself too late in pregnancy or extreme obesity of the patient; (4) in instances of previous trauma or fracture of the pelvis or history of poliomyelitis or other deforming diseases; (5) in elderly primiparas, especially when the breech presents or where extra precautions are being taken to insure the birth of a living baby; (6) during labor to ascertain the site of arrest and to aid in planning measures to overcome the dystocia; (7) when the patient requests such an examination.

Today many methods are in use which are capable of measuring the pelvic diameters with an error no greater than 3 mm. Because of the outstanding work of Caldwell and Maloy[2] and of Thoms,[15] it is now recognized that the female pelvis varies greatly in shape and this variation influences the mechanism of the obstetrician in planning the method of delivery.

To Aid in Diagnosis of Placenta Previa.—The most frequent reason for placentography is vaginal bleeding in the last trimester of pregnancy, provided the general condition of the patient permits. It is estimated that in about 3 per cent of all pregnancies, some degree of vaginal bleeding occurs. In a fifth of these patients, the bleeding is due to placenta previa. Although placentography is not infallible, its accuracy is approximately 90 per cent, and this is increased by re-examination with cystography (fig. 4).

Placentography may also be of importance in contemplated cesarean section to locate the site of implantation of the placenta prior to operation.

In our institution, we believe that the roentgenographic examination should be carried out without definite knowledge of the obstetric findings; then if there is agreement in the two opinions, our conclusions are more reliable.

We attempt to obtain most of the above information regarding the fetus and host in carrying out the roentgen pelvimetry examination. The routine roentgenograms are made and are inspected immediately for quality. At the same time, the location of the fetus is established and from this the approximate location of the placenta is determined, since it is opposite the fetus in about 90 per cent of the cases. A film is then exposed to locate the placenta. With these four films, it is possible thoroughly to study the pelvis as to type and size, determine the position of the fetus, and approximate its size in relation to the pelvis, study the fetus for abnormalities or multiple pregnancies, and in most instances establish the site of the placenta. We believe that this gives the obstetrician definite aid when needed and if additional roentgenograms are advisable at the time of the examination or at a later date, he can be so advised. There are instances of families bearing the stigma of mental deficiency in a child where roentgen pelvimetry has later revealed a contracted pelvis and subsequent deliveries by cesarean section have produced healthy, normal children (fig. 5).

We do not believe that radiology gives the entire answer, but it should be accepted as a dependable aid, remembering that due recognition must be given the fact that the soft tissue structures (the cervix in particular) and pelvic dynamics are also important factors.

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ABSTRACT OF DISCUSSION

Dr. J. E. Kanatser, Wichita Falls: No one can thoroughly discuss such a subject in a few minutes, but Drs. Moreton and Bunkley have covered their topic so completely that it is difficult to add anything to what they have already said.

I have found the roentgen ray to be of inestimable value for each of the obstetric conditions listed by the

essayists. I fully agree with them in each instance they have discussed except its use for studying the mechanism of labor. The multiplicity of the various techniques which have been offered during the past several years in an attempt to popularize roentgen pelvimetry for the study of mechanisms of labor is in itself evidence that no one of them is beyond criticism. Also, many highly trained and skillful roentgenologists recognize the technical difficulties and place little value in the results obtained by the use of the roentgen ray in the study of the mechanisms of labor. Information easily obtainable by use of the fingers and hands is far superior and much less costly, and in my opinion more dependable and practical.

The position of the baby, its approximate size, and the pelvic measurements should be known before the onset of labor. And disproportion between the fetus and the mother's pelvis, or malpresentation of the fetus, should at least be suspected before labor sets in. This information can practically always be elicited by careful external and especially by internal pelvic examinations. Roentgenograms to determine the comparative size of the fetus and pelvis should supplement these examinations in all doubtful cases. When asking for roentgenograms for this purpose, physicians should request a lateral view along with the customary anteroposterior plate, because the lateral exposure usually gives more information than the anteroposterior view. The lateral view is of especial value in revealing the degree of engagement or descent of the presenting part within the pelvis.

The proper interpretation of roentgenograms, as Drs. Moreton and Bunkley emphasized, is extremely important before a decision is made for any operative type of delivery based upon the roentgenograms.

Dr. Bunkley, closing: I wish to stress the importance of close cooperation between the obstetrician and roentgenologist in examining the pregnant woman, especially when some abnormality is suspected or known, and particularly in all borderline cases of contracted pelves and disproportion. I wish to emphasize, however, that the routine "flat plate" of the abdomen is of no value in determining the existence of a contracted pelvis or disproportion, and special technique and equipment are absolutely essential.

Second, let me stress the importance of early, frequent, and expert obstetric examination of the patient for abnormal conditions. A thorough history at the outset is necessary to determine physical and emotional abnormalities.

Third, it cannot be emphasized too strongly that the conscientious and capable obstetrician should have the final word in determining the type of delivery and prognosticating the result. He who has examined the patient numerous times during her pregnancy and knows her mental and emotional status, as well as her physical capacity, is the one most capable of reaching proper judgment and interpretation of any type of investigation.

The most important of all case-finding agencies . . . in the fight against tuberculosis continues to be the practicing physicians. It is almost always true that the family physician has the first opportunity not only to ascertain the presence of active pulmonary tuberculosis but also to give battle for the cure of the afflicted and the safeguarding of the other members of the family from the tubercle bacillus. It is the family physician to whom most people go when troubled by signs of ill health.—Comm. on Tuberculosis, New Hampshire Med. Soc., New England J. Med., Oct. 23, 1947.

ROENTGENOLOGIC METHODS IN OBSTETRICS

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GALVESTON, TEXAS

The place of roentgenographic studies in obstetrics is established on a sound footing and has attained a degree of reliability which varies directly with the care and accuracy of the radiologist. These factors are responsible, for instance, for the satisfactory results attending the accepted methods of pelvimetry, cephalometry, and estimations of fetal age on a mathematical basis. Collaboration between the obstetrician and radiologist has therefore increased to an enviable degree in the past twenty years.

The plain roentgenogram is, of course, of paramount use in determining the existence

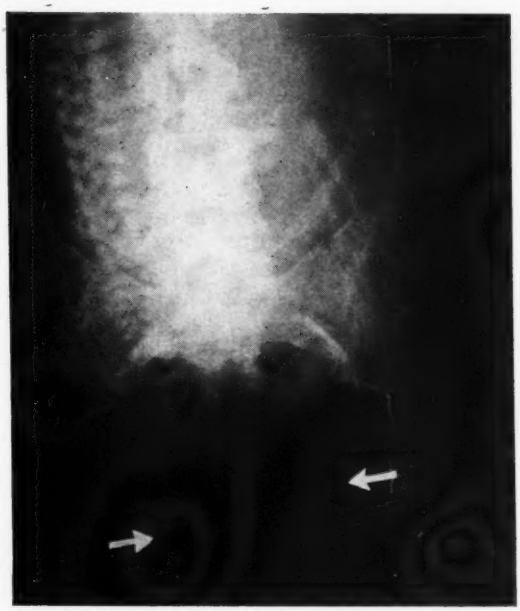

Fig. 1. Term fetus with overlapping cranial bones in the absence of labor (Spalding's sign of fetal death).

or absence of a gravid uterus. Careful technique, including cleansing of the patient's colon, emptying of the bladder, and the use of oblique projections, may disclose fetal skeletal parts in the seventeenth week of gestation, but rarely earlier. As pregnancy proceeds, observations of the uterine contents may reveal multiple fetuses, a variety of fetal abnormalities (including hydramnion, hydro-

From the Department of Radiology, University of Texas School of Medicine.

Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, Annual Session, Dallas, May 7, 1947.

cephalus, anencephalia, erythroblastosis, fetal dermoid, and so forth), and position and presentation at term. Fetal age is subject to close estimation by cephalic or extremity measurements, and term may be anticipated with the definite identification of the proximal tibial epiphysis and/or the cuboid osseous nucleus.

Fetal Death.—Roentgen examination assumes a great share of responsibility in the problem of determining fetal death. The young fetus, when seen collapsed low in the uterus, or unchanged in position after several days' interval, can be diagnosed as dead. For the older fetus, Spalding's sign in the absence of active labor, with an increasing overlapping of the cranial bones and hyper-

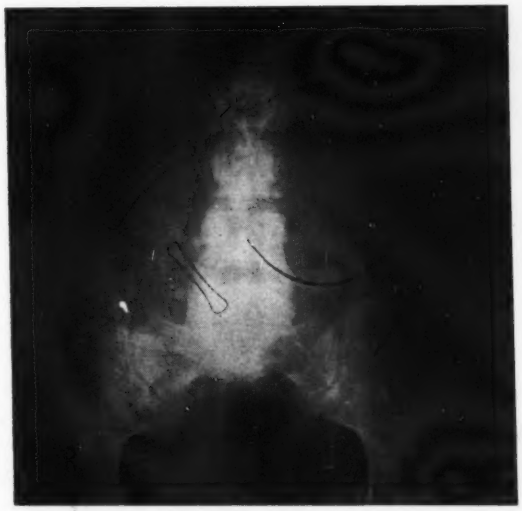

Fig. 2. (Retouched) Fetus in abdomen at term with unenlarged uterus (note gas in the pelvic colon, not compressed or displaced). Abdominal pregnancy.

flexion of the spine, is quite reliable when supported by clinical evidence of fetal death.

Figure 1 represents the second of two roentgenograms made at one week intervals and showing no change in the fetal position and some increase in collapse of the skull. The fetus was removed and its intra-uterine death confirmed.

Ectopic Pregnancy.—Extra-uterine pregnancy is usually a clinical diagnosis, most often made during the prodromal or active stage of ruptured tubal implantation. Attention has been drawn by Marshak[5] to the use of hysterosalpingography in establishing such a diagnosis, and the method is apparently used with greater freedom elsewhere than it ever is likely to enjoy in this country. In his case, intermenstrual bleeding occurred in a 22-year-old healthy girl with a negative Friedman test; it was not controlled by curettage. A hysterosalpingogram disclosed a round filling defect in one fallopian tube with a pin-point opening permitting the escape of a minute trickle of iodized oil. In view of the possibility of using the method inadvertently in an intra-uterine pregnancy, it should probably be avoided unless it is planned to interrupt the pregnancy anyway.

The figures of Lee[3] demonstrate 58 extra-uterine pregnancies in 9,999 pregnancies

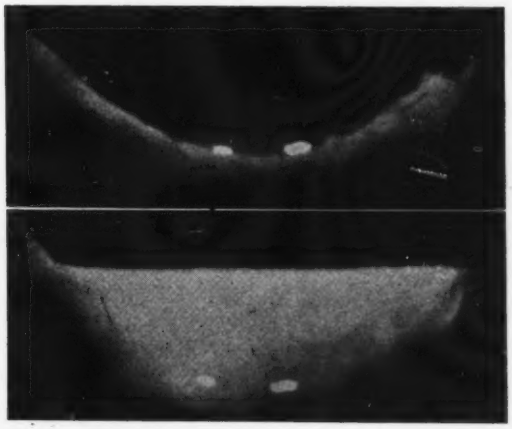

Fig. 3. Moir's demonstration of practically equal densities of placenta and amniotic fluid. The upper picture shows the placenta suspended. The lower picture shows the same placenta with the addition of amniotic fluid.

with 25 maternal morbidities but no maternal mortalities. Most interesting was the 12 per cent incidence of recurrent tubal pregnancies, somewhat higher than the percentage quoted by most previous observers. This figure, and the 43 per cent maternal morbidity rate, suggest the desirability of a good localizing method in gravid women with a history of previous extra-uterine pregnancy. Pneumoperitoneum may provide considerable help in selected cases.

Among Lee's cases was one live pregnancy, an abdominal implantation. These are generally not recognized early, but they may be identified when the fetus is maturing by its persistently high position in the absence of bleeding per vagina, and by the absence of a uterine shadow around the fetus. Supportive evidence may be desirable, and a hysterogram would provide it readily.

Abdominal pregnancy was diagnosed correctly in the case represented by figure 2*; this patient was presumed to have a normal pregnancy but an abdominal roentgenogram was requested when engagement did not occur. It had been noted on the chart that

*The clinical abstract and roentgenogram were generously loaned by Dr. Arthur Frucht, Hempstead, N. Y.

fetal heart sounds were very loud. Section was performed successfully, after the roentgen diagnosis, delivering a live baby. As is often the case, much of the placenta was attached to the serosa of intestines. Of rarer occurrence, this patient had had a right salpingo-oophorectomy one year before she became pregnant.

Sacral Hiatus.—In any obstetric practice in which caudal anesthesia is used extensively, visualization of the sacral hiatus should be routine as a simple prophylaxis against misuse due to open sacral canals or other abnormalities. In late pregnancy, this is accomplished by an anteroposterior projection

Fig. 4. Placenta implanted in fundus, posterosuperiorly.

directed through the midsacrum, with the knees slightly flexed and the central ray angled 45 degrees cephalad.[1] The sacral hiatus and posterior foramina are well visualized by this projection.

Direct Placentography.—Comment must be made on the value of soft tissue studies of the pregnant uterus. Routine reporting of the site of placental implantation is a radiologist's function as much as a description of position and presentation. Location of the placenta by contrast amniography has not gained favor generally, for it involves interference in the uterus of a live pregnancy and has been attended by some abortions and many inductions of labor, even after the strontium iodide solution of Menees, Miller, and Holly[5] was replaced by less toxic materials. Some British investigators claim the method is not dangerous when used just before term and may actually be a safe way to induce labor. Direct placentography by soft tissue study,[6, 7] supported by systography[2, 6] and the erect position when indicated, provides weapons for the radiologist which render the use of contrast amniography an unnecessary risk in almost all cases under suspicion of placenta previa. When direct placentography is performed after the seventh month of pregnancy, most examiners report about 90 per cent accuracy in localizing the placenta when it could be visualized, and over 97 per cent accuracy with the addition of cystography (or indirect placentography) when it could not be directly visualized. The disparity in thickness of the uterine wall (average 1.24 cm.) and of the internal wall plus placenta (average 7 cm.) is striking, and in the light of the techniques enumerated above, the practically equal densities of placenta and amniotic fluid may not be of too great practical importance. Moir's demonstration (fig. 3) does not necessarily reproduce the distribution of placenta and amniotic fluid in utero. When the placenta is visualized in the fundus, as in figures 4 and

Fig. 5. Placenta in fundus with fetal small parts causing typical digitations.

5, the site is obvious and placenta previa can be ruled out. Sometimes the fetal small parts, which usually face the placenta, form visible digitations in the placenta and amniotic fluid (fig. 5).

When the placenta is seen in the lower uterine segment, low implantation is diagnosed and a marginal placenta previa may be suggested. When the placenta is not seen at all, a central placenta previa is likely. In the erect posture, displacement of the presenting part above the plane of the inlet or

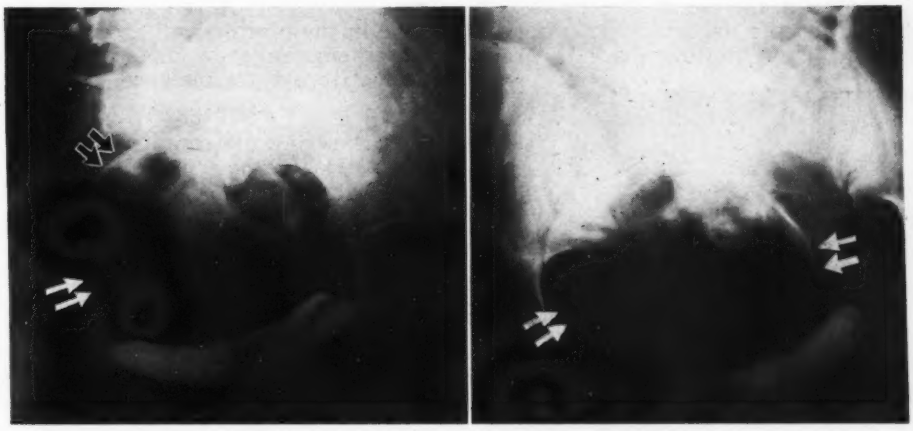

Fig. 6. Right and left oblique views of the pelvis with cystogram outlining the normal relationship of fetal skull and bladder.

away from the center of the pelvis is of diagnostic importance as evidence of placenta previa. This is so reliable that Ball and Golden, and more recently Archer and Adair, depend upon these signs exclusively, with films made at eight and one-half months' gestation.

Indirect Placentography.—With placenta previa in question, cystography with air or opaque material may be used to seek signs of increased distance between the fetal skull and bladder in vertex presentations during the latter weeks of pregnancy. At that time, the anterior portion of the lower uterine segment lies in close apposition to the posterosuperior wall of the bladder. Hence it is advisable to make anteroposterior and lateral or oblique projections. There is a difference of opinion as to the advantages of air and opaque media in the bladder. Although I prefer air in order not to obscure any part of the fetal skull, adequate films with opaque material should be satisfactory. The danger of air embolism seems over-estimated, particularly if the amount of air is not excessive. Roentgenograms should be made in the erect posture.

Normal relationship of fetal skull and bladder is seen in the right and left oblique films in figure 6. The following case ab-

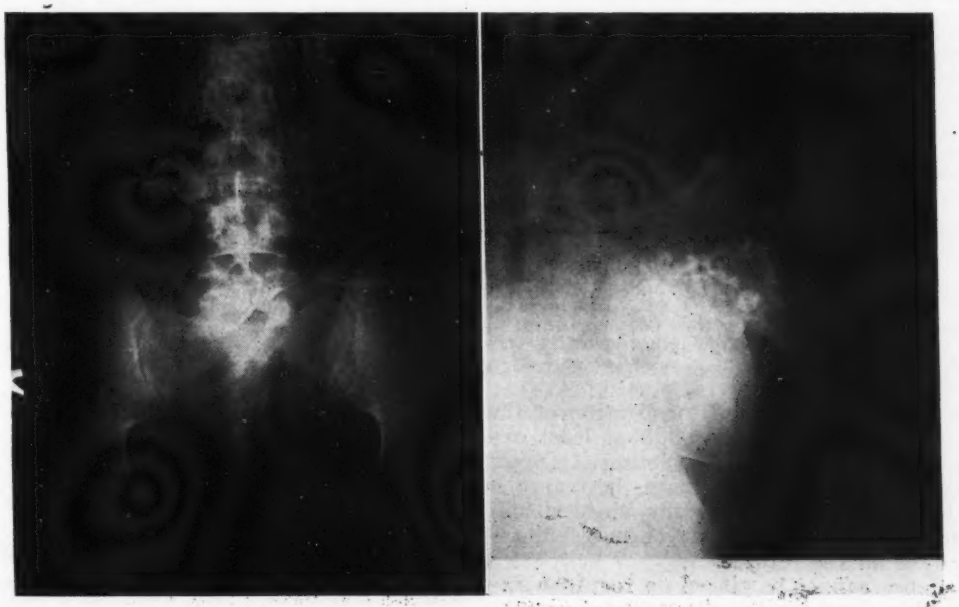

Fig. 7. Placenta previa centralis shown in anteroposterior and lateral roentgenograms.

stracts emphasize the use of direct and indirect studies and the importance of the clinical story in differentiating placenta previa

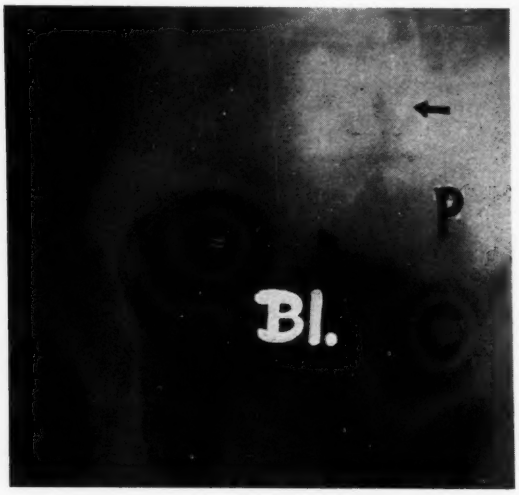

Fig. 8. Placenta previa marginalis. Note the bladder (Bl.), placenta (P), and fetal skull (arrows).

from fibroids or other masses in the lower uterine segment.

CASE REPORTS

CASE 1.—D. K., age 27, white, para 1, gravida 3, was known to have rheumatic heart disease. The first baby was delivered by cesarean section because of maternal cardiac difficulty with decompensation. The patient was admitted at eight and one-half months' gestation in her third pregnancy with complaints of cramps and bleeding. A trial labor was unsuccessful after artificial rupture of the membranes and external version to a cephalic presentation. A live baby was delivered by section. Roentgen examination (erect posture) had demonstrated a high-riding fetus, in transverse presentation, with no visualization of the placenta in anteroposterior and lateral films (fig. 7.) In view of the clinical history, placenta previa was indicated. The postoperative diagnosis was placenta previa centralis.

CASE 2.—P. M., age 36, white, para 5, gravida 6, was admitted because of bleeding after eight months of apparently normal pregnancy. Roentgen examination showed a fetus with vertex presenting but not engaged. Air cystography (fig. 8) demonstrated increased soft tissue width between the fetal skull and bladder on the left. Diagnosis of placenta previa marginalis was not confirmed on sterile pelvic examination. Vaginal delivery was precipitate and the placenta showed evidence of a placenta previa marginalis.

In multiple pregnancy, localization of the placentas is difficult, although at least one placenta can be identified sometimes. Direct placentography in these cases, however, is not reliable for complete study, since visualization of one placenta may or may not account for all the fetuses.

Reliance cannot be placed on roentgen examination alone for the diagnosis of premature separation of the placenta; the local bulge in the uterine wall described by Snow and others cannot be differentiated from a uterine fibroid, for instance.

SUMMARY

1. A review of roentgenologic techniques in obstetrics has been presented.

2. The usefulness of soft tissue study of the gravid uterus is noted, and case abstracts with illustrations are offered.

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ROENTGEN PELVIMETRY

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The following case is presented to illustrate the application of the measurements of the pelvic inlet for determination of whether the fetal head will engage or pass.

In figure 1 is shown a tracing of the pelvis and fetal head. The pelvis had the following dimensions: obstetrical conjugate 12.6 cm., transverse of inlet 12.2 cm., right oblique 12.0 cm., left oblique 11.3 cm., bi-ischial 10.0 cm. Dimensions of the fetal head (roentgen measurement) were: biparietal 10.2 cm., occipitofrontal 12.4 cm., and the position left occipito-anterior.

Cesarean section was done after fifty-five hours of labor and a normal, living child was obtained. The actual measurements of the child's head were biparietal 10.1 cm. and occipitofrontal 12.4 cm. A reconstruction of the pelvis and fetal head from the dimensions was made in plaster for the purpose of study. The right oblique diameter of the pelvis, in which the occipitofrontal portion of the fetus lay, was seen to be the most favorable for the long axis of the child's head, but the degree of flexion necessary for engagement appeared to be too great for it to occur, and engagement in any other position was shown to be absolutely impossible.

The interest of this case is that it shows definitely the importance of having a demonstration of the nature of the pelvic inlet and the oblique diameters. In such a projection as used for the anteroposterior projection by

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Ball it is impossible to demonstrate the inlet. It is like trying to look at a plate when it is turned obliquely, so that neither the surface from a perpendicular position nor the edge directly from the side can be seen. This is because the position described by Ball calls for the roentgen-ray tube to be directly over the pelvis, so that the central ray shall pass perpendicularly to the film through the head of the fetus. The result is that the oblique diameters of the inlet cannot be measured in the anteroposterior projection, and neither can the anteroposterior diameter or obstetric conjugate. The obstetric conjugate can be measured in the lateral projection but the oblique diameters cannot.

If this case used for illustration is subject to analysis by the Ball method, the result is a volume capacity of the skull of 788 cc. from perimeter measurements of 36 cm. The transverse of the inlet of 12.2 cm. is 1.3 cm. below the normal, and the anteroposterior of the inlet of 12.6 cm. is 1.6 to 1.9 cm. above the normal of 10.7 to 11 cm. formerly given. The volume capacity of the anteroposterior diameter is 1,042 cc. and that of the shorter diameter of the pelvic inlet, which Ball in the original article advocated be used, is 940 cc. Neither of these would give a difference between the inlet capacity and the skull capacity of 150 cc., which is the figure taken as the normal minimum limit beyond which section is indicated.

The bi-ischial diameter of 10 cm. has a volume capacity of 523.6 cc. and the biparietal diameter of the skull estimated at 10.2 cm. (and shown to be actually 10.1 cm. after delivery) has a volume capacity of 560 cc., which is no discrepancy. I believe that as the biparietal diameter passes between the ischial spines the biparietal and bi-ischial dimensions should be compared, and not the bi-ischial capacity of 523.6 cc. and the total volume of the skull of 788 cc. Ball's original article of 1935 is ambiguous as far as this point is concerned. Certainly most bi-ischial diameters I have measured appear to be 10 cm. and many children's heads declared to be 10 cm. biparietal have passed through such a diameter after molding.

Although the occipitofrontal diameter of 12.4 cm., volume capacity 1,015 cc., and the right oblique diameter of the pelvis of 12.0 cm., volume capacity 904 cc., do not have volume capacity discrepancies over 110 cc. Engagement did not occur because the assymetry of the pelvis with the shorter left oblique diameter of 11.3 cm. would not permit the left side of the fetal skull to pass by the mother's left sacrioliac region at the pelvic inlet. When the skull was displaced anteriorly to permit this, it impinged on the right lateral and right anterior portion of the maternal pelvis, as was demonstrated by the plaster model. The anteroposterior projection made to show the nature of the pelvic inlet demonstrated this condition. The degree of assymetry is rather slight and not too readily apparent on inspection because of the confusion of the outline of the fetal skull overlying it.

The anteroposterior shortening which would result if this anteroposterior film were taken with the tube directly over the pelvis would make the assymetry even less apparent. I believe that this case explains why the Ball method may give results in figures which indicate labor should be possible when it actually is not, especially if no roentgenograms are made to show the real nature of the pelvic inlet on the anteroposterior projection. Conversely cases can be found when the Ball measurements alone indicate that labor is not possible and the patient delivers before preparations for the cesarean section can be made.

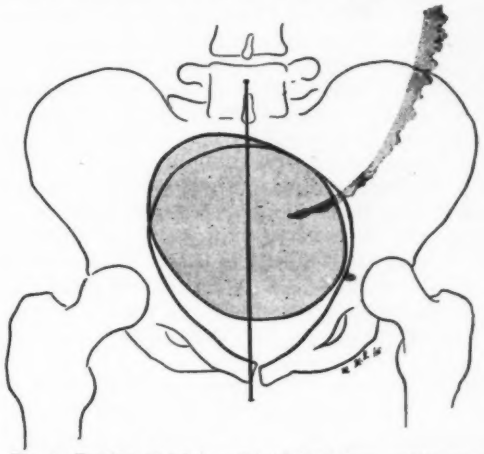

Fig. 1. Tracing of pelvis and fetal head from roentgenogram to show how measurements can be made to determine whether the fetal head will engage or pass.

The demonstration of the anteroposterior and oblique diameters of the pelvic inlet and its nature can be done only in the anteroposterior projection, by either the method of Thoms published in 1922, in which the plane of the pelvic inlet is parallel to the film when the patient is sitting rather erect while the roentgenogram is being made, or by the method published in 1939 by Dr. R. J. Reeves and myself, in which the patient is recumbent and the roentgen rays pass obliquely through the pelvic inlet toward the patient's feet at an angle of 12.5 degrees from the vertical and with the central ray just inferior to the an-

terior superior spine of the ilium. This latter method gives a reasonably accurate approximation of the true picture of the inlet as given by the Thoms method, but does not, in my opinion, require as much technical detail in making the anteroposterior film exposure as the Thoms method, which I also think is a problem when male technicians are used.

It now appears that the scale originally published in 1939 for the measurement of roentgenograms made while the patient is recumbent and with the rays passing obliquely through the pelvic inlet was needlessly complicated. A simple ruler has been devised which is reasonably accurate for measuring the inlet when the roentgenograms are made at 30 inches target film distance. Measurements are made in the usual manner by placing the ruler on the diameters of the inlet it is desired to measure without any preliminary preparation. The anteroposterior oblique, and transverse diameters are all measured with the same scale, constructed from the data in table 1, in which 11.95 cm. in actual measurement is used for each 10 cm. of the false scale used for measuring.

TABLE 1.—*Scale for Measuring Pelvis Inlet on Roentgenogram Made at 30 Inches Target Film Distance.*

False Scale for Measuring (cm.)	Actual Measurement (cm.)
5	5.97
6	7.17
7	8.36
8	9.56
9	10.76
10	11.95
11	13.15
12	14.35
13	15.53
14	16.71
15	17.91

In cephalic presentations measurements made on the lateral roentgenograms indicate that the head usually lies an actual distance of from 13 to 15 cm. in space above the table top when the patient is recumbent and while the head is still unengaged. When 4 cm. is allowed for the distance from the film to the table top, this places the center of the child's head 18 to 19 cm. above the film, and the length of the diameters of the fetal skull, which are parallel to the film, can be measured by Walton's false centimeter scale on the level marked 19. For convenience this line 19, in which 10 cm. measures 13.4 actual centimeters, has been included on the same ruler with the previously mentioned scale for measurements of the inlet on the anteroposterior projection I devised. The diameters of the skull can be measured and the size of the skull can be penciled in on the anteroposterior roentgenogram of the inlet by laying down the dimensions of the skull with the scale used for measuring the inlet. This saves making a complete drawing on paper according to actual dimensions of both inlet and the skull. The advantage is that the skull can then be compared directly with the pelvic inlet, which would otherwise not be possible as the skull is closer to the tube and further from the film in both Thoms' projection and the one I devised, which causes the skull to be enlarged to a greater extent than the inlet.

In accordance with the above explanation it can be stated that if the outline of the skull on the film by itself, without this process of reduction to the same scale as the inlet, is of such size that it will appear to pass, it should, from the standpoint of the diameters alone without considering other factors such as fibroids, and so forth, because it will actually be smaller than it appears.

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ABSTRACT OF DISCUSSION

Dr. P. E. Wigby, Houston: I doubt whether anyone would deny that Dr. Reuter has given a good deal of time and thought to the subject of roentgen pelvimetry. After studying the subject a number of years he has devised a short and simple method of determining with satisfactory accuracy the length of any pelvic diameter. His extent of error will be about 5 per cent. This is certainly a sufficient degree of accuracy for the average run of obstetrics.

My personal belief is that more important information than measurements is obtained from the roentgen examination in cases of suspected contractions or certain short diameters. Chief among these is a description of the type of pelvis under consideration, including variations in development and deformities either developmental or acquired. If there is any significant asymmetry, this will be seen at a glance by the experienced observer and actual mensuration will not be necessary. There is an occasional case in which an obstetrician will request more accurate measurements than can be obtained by any distortion scale method. This can be done quite easily by the paralax method, but this procedure requires stereoscopic films in each of the anteroposterior and lateral positions. The type of case is the one with actual borderline pelvic dimensions in which the physician is particularly desirous of avoiding cesarean section, such as in an extremely poor risk.

The extent to which roentgen methods are requested in my hospital where at least 100 different men deliver babies can be understood from the fact that out of 6,013 deliveries in 1946 only 100 requests for any type of examination were received by the X-Ray Department there. Of course many more than this had roentgen examination before admission.

Of the 18,624,000 veterans of all wars on January 1, about 14,745,000 served in World War II. The remainder were in World War I, the Spanish-American War, Civil War, and Indian Wars, reports the Veterans Administration.

GYNECOLOGIC INVESTIGATION OF PATIENTS IN STATE ELEEMOSYNARY INSTITUTIONS

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and
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Largely through the efforts of the late Judge Weaver Baker as chairman of the State Board of Control, assisted by Dr. Charles Castner of the Austin State School and Dr. A. T. Henretta, superintendent of the Austin State Hospital, the Department of Obstetrics and Gynecology of the University of Texas Medical Branch was granted permission in the fall of 1945 to examine all the women in the state eleemosynary institutions. Also, we were requested to treat and operate on gynecologic conditions found. Necessary permanent equipment was to be obtained by loan or purchase from the Austin State Hospital. A large grant, plus medicinal agents, was obtained from the Eli Lilly Company of Indianapolis, Ind. We were granted permission by the State Health Laboratory officials to utilize the facilities of the diagnostic division of the laboratory; consultation and assistance by members of that division have been helpful. We are indeed grateful for the expert assistance of Mr. George Klein.

There are more than 22,000 patients in our state eleemosynary institutions. More than one-half of these patients are women. This makes it possible to carry out a thorough research project, mainly because these patients are carefully controlled and are at all times available for careful observation, treatment, and follow-up. It simply means that more than 12,000 women under lock and key are available for study. It affords these patients additional medical service that may be beneficial to them.

When this project was begun it was understood that we were not attempting to prove anything. Neither were we looking for any definite gynecologic conditions. It appealed to us because of the opportunity to give specialized medical care to a large indigent group. Also, our patients would be under absolute control as to diet, living conditions, and so forth. Treatment and observation could be carried out and the patients could be followed in most cases indefinitely. All patients were to be examined at their respective institutions. We were to have the assistance of a trained medical secretary for record keeping, histories, and so forth, and also a trained qualified bacteriologist. All tissues for study were to be sent to our department at the Medical Branch. Monthly cumulative reports were to be made and sent to the chairman of our department, who is the director of the research project.

We began our work at the Austin State School one year ago. The majority of patients at the Austin State School are exceptional children, largely Mongolian idiots, imbeciles, and low grade morons. Careful consideration was given to infections of the female generative organs and the presence of anomalies and to looking, of course, for any abnormal gynecologic conditions. Cultures were made from the cervix of each of the adult patients and teen-age children and from the vagina and urethra of each of the infants and children whose cervical glands were not well developed. However, in many instances where the hymen was intact it is probable that we did not obtain secretions from the cervical canal of adults.

The cultures were placed on proteose peptone hemoglobin agar and incubated at 35 C. in decreased oxygen tension. Cultures from the wall of the vagina were placed on Wort or Sabouraud's media for detection of the presence of Monilia infection. Fresh smears were studied on all cases for the presence of trichomoniasis or other pathologic conditions.

A careful gynecologic examination was made and the findings placed on record. Biopsies of abnormal cervices were made and in no case was a patient treated until the diagnosis was made. We have completed examination of the patients at the Austin State School. There were 1,014 cases. All of the abnormal gynecologic conditions found are summarized in table 1.

One patient had a congenital absence of the left adnexa, with a unicornuate uterus. Another had a midline vaginal septum with a biforis. Two patients had midline vaginal septa. One patient had a transverse vaginal septum. One had a congenital common cloaca. Seventeen patients had congenital stenoses of the vagina. We were somewhat surprised to find so many patients whose hymens were intact. There were 244 patients past 18 years of age whose hymens were intact. It is somewhat generally accepted that patients with low I. Q.'s in institutions masturbate. We were of the opinion, after seeing so many patients with intact hymens, that this conception was erroneous. However, when we were examining the last group of patients in the dormitory where the

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patients were confined to their beds, we saw girls in strait-jackets with arms tied to the sides of the beds rubbing the clitoris with the heel. After this observation we have been somewhat reluctant to make any definite statements on this subject.

It has been estimated by Dr. Robinson at the Austin State School that approximately one-fourth of the patients are Mongoloid. This group presents an interesting study.

TABLE 1.—*Abnormal Gynecologic Conditions in 1,014 Female Patients at the Austin State School.*

Absence of the left adnexa	1	Nabothian cyst	21
Anteflexion	13	Neisseria sicca	12
Atrophic vaginitis	61	Neoplasm of perineum	4
Bartholinitis	2	Ovarian cyst	13
Bilateral ovarian tumor	1	Ovarian tumor	16
Calcarious degeneration of ovary	1	Para-ovarian tumor	1
Cervical polypi	26	Perineal polypi	3
Cervicitis	58	Posterior vaginal septum	1
Cystocele	19	Pregnancy	1
Ectropion	3	Procidentia	6
Endometriosis	12	Prolapsus uteri	24
Gonorrhea	4	Pruritis vulvae	3
Heteroplasia of cervix	21	Rectal polypi	1
Hymen intact	244	Rectocele	19
Hypertrophy of labia	10	Retrocession uteri	17
Hypertrophy of uterus	11	Retroversion uteri	208
Hypoplasia of uterus	119	Salpingitis	23
Labial polypi	3	Skene's gland cysts	2
Lacerated cervical stump	1	Stenosis of vagina	17
Lacerated cervix	57	Transverse vaginal septum	1
Lacerated perineum	52	Trichomoniasis	102
Lateral displacement of uterus	20	Tuberculous pelvic adenitis	1
Leukoplakia	4	Ulceration of cervix	1
Leukorrhea	143	Unicornuate uterus	1
Midline vaginal septum	2	Urethral coruncle	2
Moniliasis	19	Urinary incontinence	1
Myomata uteri	78	Vaginitis	17
		Vulvitis	6
		Vulvovaginitis	15

Notes: Tuberculosis patients—acid fast smears made for tubercle bacilli negative 8
Biforis with midline vaginal septum 1
Atresia of anus with recto-vaginal fistula congenital common cloaca 1

In not a single case did we find a Mongoloid type whose uterus was more than 2.5 cm. in its greatest dimension. One of the Mongolians has a twin who is normal. Many of these idiots are past their third decade.

The diagnosis of endometriosis was made in only 12 patients. Bartholin cysts were present in only 2 cases. Two hundred and eight patients had retroversion. In none of these cases did we find indications of subjective symptoms to justify a suspension. There were 24 patients whose uteri had prolapsed and 6 had complete prolapse or procidentia.

We were somewhat surprised to find so few infectious changes. Of course, these patients do not have coitus; perhaps more important is the fact that they do not take douches. They all bathe in tubs and all in each ward use the same tub. In spite of this there were only 102 cases of trichomoniasis. This group is presenting a valuable study, under controlled conditions. Moniliasis was proven on Sabouraud's or Wort agar cultures in only 19 cases. These cases have been carefully followed and have been successfully treated.

There were only 4 cases of gonorrhea found. However, there were 16 cases found with a gram-negative intracellular diplococcus present. The organisms from 12 of the 16 cases fermented all the sugars except manitol. In no case was a diagnosis of gonorrhea made by finding on cultures or smears a gram-negative intracellular diplococcus. All of these organisms were placed in the sugars and thus classified. Physicians in public health work no doubt on many occasions have had an opportunity of assisting with the diagnosis and treatment of outbreaks of vulvovaginitis, usually considered gonorrhea, in schools, orphanages, and so forth. It is our opinion that a grave error may be made by calling cases vulvovaginitis gonorrhea after simply finding gram-negative intracellular diplococcus by smear or by culture. It is impossible to differentiate these organisms microscopically. It is necessary to run them through the various sugars before making an accurate diagnosis.

There was 1 case of tuberculous pelvic adenitis. There were 143 patients who had a vaginal discharge with etiology unknown. There were 23 cases of salpingitis. Sixteen patients had ovarian tumors; 13 had ovarian cysts, but only 1 had bilateral ovarian cysts. Seventy-eight patients had myomata uteri.

The following operations have been or will be done: 69 hysterectomies; 9 colporrhaphies; 4 dilatations with currettage; 4 operations for removal of uterine polypi; 7 oophorectomies; 8 operations for endometriosis; 5 salpingectomies; 17 operations to remove cervical polypi; 1 excision of a large Skene's gland cyst; 1 correction of a cloaca; and 6 operations to correct a procidentia.

The majority of these patients are being operated on at the Brackenridge Hospital, Austin. A flat rate of $9 per day is paid for each day the patient remains in the hospital. This includes operating room facilities, anesthesia, drugs, and laboratory work, including roentgen ray. On the second, third, or fourth day the patients are transferred to the hospital at the Austin State School, where the postoperative course is followed. Patients valuable for study or teaching are sent to the Medical Branch at Galveston. This project can be a valuable contribution to our department. The patients in the state eleemosynary institutions make the institutions a paradise for the pathologist.

We are now ready to begin work at the Austin State Hospital. There are more than 2,000 women to examine. They are all adults and are mentally ill. We are going to do a biopsy of every cervix and make fresh vaginal smears for uterine cancer in every case.

After we have screened a large number of patients we hope to do research with some of the many interesting problems that are presenting themselves.

Dr. Cooke, Department of Obstetrics and Gynecology, University of Texas Medical Branch, Galveston.

Dr. Weaver, 1209 Guadalupe Street, Austin.

ABSTRACT OF DISCUSSION

Dr. Roy L. Grogan, Fort Worth: It is unusual to note so many women of low mentality between the ages of 18 and 40 to have intact hymens. It bespeaks close observation, and certainly there is an accepted conclusion that a majority of morons indulge in masturbation.

The incidence of specific infections corresponds to that which I have observed, namely, gonorrhea is rarely found; syphilis, if found, is usually latent; but other discharges, such as that resulting from Trichomoniasis or fungus infections, notably predominate. I am glad to note the distinction between the specific and nonspecific cocci and I realize that this is a mistake often made, much to the embarrassment of the initial diagnostician. A physician cannot be too careful in making a positive diagnosis of gonorrhea. Long ago I learned the hard way a lesson that should be learned early, that is, to say the infection resembles gonorrhea rather than to say emphatically that it is gonorrhea.

The instance of fibromyomas is within the limits of the normal occurrence in women who have not had pregnancy and it needs no comment. The method of diagnosis of bicornate uteri should be emphasized. I do not believe that I can properly diagnose this condition without uterosalpingography. Of course it is of no importance in this class of women except from the standpoint of menstrual disturbances, but in the mentally normal woman and in the productive period it is of vital importance to her fertility.

One interesting factor has been brought to my attention recently: the absence of a kidney. This brings to mind a statement made by some writer many years ago, that the absence of one kidney is always accompanied by the absence of the tube and ovary on the same side. This obviously should recall the embryonic development of the reproductive system and its relationship to the genito-urinary tract. Further forgetting this important occurrence may prove embarrassing to the operator who is searching for internal genitalia and fails to realize in its absence that there may be only one kidney present.

However unfortunate it is that institutional surveys have to be subsidized by prominent drug houses, it is an enlightening procedure. It is my sincere regret that our institutions themselves are not adequately prepared to conduct such investigations and make every effort toward correction of anomalies.

Dr. L. W. Fetzer, Dallas: To know more of the characteristics and makeup of inmates of the eleemosynary institutions in Texas is valuable to the medical profession and others connected with sociologic endeavors as a whole. I wonder whether or not any comparisons have been made on similar findings in the institutions of other states.

Preventive medicine requires not only the cooperation, consent, and understanding of the individual who is to be benefited; oftentimes he must take the initiative—he must realize that it is just as important to seek advice from his physician on how to keep well as it is to call upon the physician for help when illness strikes.—Medicine in the Changing Order, Rep. N. Y. Acad. Med. Comm., Commonwealth Fund, 1947.

ANALYSIS OF MATERNAL MORTALITY AT ST. JOSEPH'S INFIRMARY, HOUSTON, TEXAS

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Since the opening of the Maternity Division of St. Joseph's Infirmary in August, 1938, through 1946, 45 maternal deaths have occurred out of a total of 36,784 live births. This is a maternal mortality rate of 1.22 per 1,000 live births. A study by years showed no decrease in maternal deaths but the average per year for the eight years was approximately 5.

No correction was allowed in this critique. Any patient who was pregnant, or recently so, and whose pregnancy or its management had a direct effect on the death was included. In 3 cases the pregnancy had terminated in other cities, 1 in a different hospital in Houston, and another patient was discharged from our service but died elsewhere. Three deaths resulted from infected criminal abortions, and 2 from ruptured tubal pregnancies.

TABLE 1.—*Causes of Maternal Deaths*

Toxemias (all eclamptics but one)	11
Puerperal infection	10
Sudden deaths	8
Hemorrhage	7
Miscellaneous (tuberculosis, pneumonias, etc.)	9

The great majority of the patients admitted to this service are private cases and it is presumed they have had some type of prenatal care. Approximately 5 per cent were clinic patients. These patients are cared for by the house staff except where consultation with the attending staff is required.

The cases will be presented under the major cause of death. There is certain unavoidable overlapping since in a number of instances there was more than a single causative factor.

TOXEMIAS

Eclampsia was the outstanding offender in this group. It accounted for 10 of the 11 deaths. The one exception resulted from acute yellow atrophy of the liver. The diagnosis in the latter case was made clinically about twelve hours after delivery and by postmortem examination about twenty-four hours later.

There was a total of 89 eclamptic cases handled during the period of time this study covers. Since there were 10 deaths directly

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attributable to this toxemia the mortality percentage was 11.2. Seven of the 10 patients had been attended prenatally by the physicians handling the cases in the hospital. Three had no care of any kind before being admitted as an "emergency." Of the 10 patients, 6 died within forty-eight hours after admission; they were "fulminating" cases. One case was a postpartum eclamptic; developing several hours after delivery and death occurring from a cerebro-vascular accident. This patient had been under observation and treatment for five days (in the hospital) before spontaneous labor at thirty-two weeks' gestation began. She had been considered to have moderately severe pre-eclampsia.

Eight of these patients died of pulmonary edema and failure of the right side of the heart. Two died of cerebro-vascular accidents. Delivery was effected in 6 cases with 5 infants either being stillborn or dying soon after birth. One infant survived. Labor was induced by artificial rupture of the membranes in 3 of these instances.

The total number of eclamptic cases handled was small in comparison to the number of births but those seen were severe. The toxic patient requires the utmost attention and skill during prenatal care and timely judgment when termination of the pregnancy is essential. Each case is an individual problem in itself; no rules or regulations as to handling will apply to all cases. Medical management in the severe toxemia has greatly improved our results, but timely operative intervention in the occasional fulminating case not responding to usual procedures has its place.

PUERPERAL INFECTION

There were only 9 deaths from this complication. With the advent of the sulfonamides and penicillin, prophylaxis and treatment of morbid cases have been greatly facilitated.

Unless definite evidence of an existing internal source of infection (for example, focal infections or abscesses) or an external source (for example criminal interference) is present we consider most of these deaths as preventable. Prevention can be assigned to three categories: the patient, the doctor, and the hospital. Only by such a breakdown in the causes of death can physicians hope to approach the ideal of practically eliminating maternal mortality. It is believed that the mortality rate (maternal) in a well-controlled hospital should be less than 1.0 per 1,000 live births.

The 3 patients who had criminal abortions died from generalized peritonitis. One patient had been so well for five weeks after the criminal interference that she had done office work; then she had fever and chills and very mild vaginal bleeding. After medical treatment for five days a curettement was done even though she still had hyperpyrexia and very little bleeding. Blood culture four days later was positive with hemolytic streptococci and she died of peritonitis. One other case of peritonitis followed a curettement for moderate bleeding from an incomplete early abortion. Although the patient was admitted with very little fever, a question of criminal interference existed. This patient died of a generalized peritonitis. The employment of curettage in infected or potentially infected cases merits the most careful consideration and judgment.

There were 3 cases of puerperal infection following cesarean sections. All were of the classical type even though 2 were done in the presence of existing intra-uterine infection. In the third case the urinary bladder had been attached to the fundus uteri at a previous laparotomy and both anterior and posterior walls of the bladder were cut through before the anatomic discrepancy was noticed. The indications for the cesarean sections were transverse presentation, cephalo-pelvic disproportion, and premature separation of the normally implanted placenta.

One death occurred in a patient who had been delivered in a hospital in a neighboring city. She had a premature delivery, apparently was discharged in good condition, but when admitted here six weeks after delivery had a pelvic infection and pyelitis.

An infected abdominal pregnancy caused 1 of the deaths. This patient had consulted her physician only the day before admission and was quite ill. She presented findings of an abdominal pregnancy complicated by generalized septicemia. Autopsy revealed a macerated abdominal pregnancy, generalized peritonitis, and associated findings. The probable source of entry of infection in this case was not known. The remaining infection which resulted in death was due to an intra-abdominal abscess and intestinal obstruction occurring about six weeks after abdominal surgery for a ruptured ectopic pregnancy in another city.

SUDDEN DEATHS

This group included a number of cases in which the diagnosis was not certain since the real cause of death was obscure and autopsy rarely performed.

One patient had a normal delivery and postpartum course until the sixth day when she developed signs and symptoms suggestive of intestinal obstruction. Immediate laparotomy disclosed a massive thrombosis of the superior mesenteric artery. Another death occurred as the patient (a multipara) was being taken into the delivery room after an apparently normal labor of twelve hours' duration. Just as she was placed on the delivery table she became dyspneic, cyanotic, and went into shock before any anesthetic was given or delivery effected. Cerebral embolus was given as the probable cause of death. Another sudden death was due to aspiration of solid food particles after ether anesthesia for a normal delivery. Tracheotomy was done but with no relief.

There were 4 cases in this group that bore some resemblance in that death appeared due to primary shock associated with a moderately difficult delivery and/or prolonged labor. Three of these occurred in primiparous women, the oldest being 31 years of age. One had a short hard labor and forceps rotation of an occiput posterior position was done. She was reported to have lost 450 cc. of blood at delivery. Death occurred within a few hours after delivery. Interesting features in this case were that bloody urine was obtained upon catheterization just before the patient was taken into the delivery room and it was noticed at about the same time that the fetal heart tones, which had been good, had disappeared. A stillborn infant, which showed evidence of being alive until just a short time before, was delivered. Although exceedingly rare, a spontaneous rupture of the uterus might have occurred (no uterine surgery had been done before).

Two other deaths occurred in primiparous women; they followed breech deliveries. One of these women had a thirty-one hour labor and the other about eighteen hours of labor. In both cases the amount of blood lost was stated to be from about 400 to 500 cc. at the most. Both went into shock during the latter part of the deliveries and died soon after. An autopsy was obtained in 1 case (eighteen hour labor) and it revealed nothing of note. There was no evidence of postpartum hemorrhage.

Another patient was a multigravida, 39 years of age, whose pregnancy was complicated by a moderately severe pre-eclampsia. After a short hard labor, she was delivered under a general anesthetic by a physician other than her own. Bleeding in this case was estimated to be about 400 cc. She promptly went into shock before termination of delivery and died within an hour.

One patient had been induced into labor at six months' gestation because of decompensating heart disease at another hospital and delivered there. She was admitted on our service because of a subsequent pelvic infection. After several days of treatment she was afebrile; three days later she died within a few hours after receiving about 100 cc. of blood in a transfusion. Death was thought to be due to pulmonary embolus and infarction. It could have been the result of incompatibility of blood. We were not equipped to do the Rh factor determination at that time. The major blood types were compatible.

HEMORRHAGE

There were 7 deaths directly due to hemorrhage. Four were attributed to atonic uteri immediately following delivery, 2 were due to ruptured ectopic pregnancies, and 1 was due to premature separation of the placenta in a case of abdominal pregnancy.

Except for a mild form of premature separation of the placenta accompanying the labor of 1 patient, 3 of these cases were similar. The labors were not unusually long nor severe and deliveries were considered normal. Bleeding occurred during and after the third stage and death took place from hemorrhage and circulatory collapse. The fourth case had a forty-hour labor and delivery was accomplished by manual dilatation from 5 cm. and midforceps extraction. A different method of delivery might have altered the course in this case. In none of these cases was blood immediately available for transfusion. It is unfortunate that the hospital has no blood bank. Immediate replacement of blood lost in such cases is of the greatest value. One of the above cases had no more energetic treatment than intramuscular oxytocics and a vaginal packing. This treatment could have been supplemented by intravenous injections of the medications, fluids by vein to combat shock, and intrauterine packing.

Two patients were admitted with a diagnosis of ruptured ectopic pregnancy and died of intra-abdominal hemorrhage and shock before they could be prepared for surgery.

The patient with a premature separation of the placenta of an abdominal pregnancy had surgery performed and death ensued within a few hours. She had been under observation for three days. The gestation was of seven months' duration.

MISCELLANEOUS

There were 3 deaths from pneumonia. One patient, who was a 35-year-old primipara, had a classical cesarean section for a contracted pelvis and uterine fibroids. She

became cyanotic and dyspneic within twenty-four hours after surgery and died within four days of a bilateral lobar pneumonia. The advisability of examination of the pulmonary and cardiac systems before surgery needs no comment. There was a fatal case of aspiration pneumonia following a normal labor and delivery under nitrous oxide-oxygen anesthesia. The patient vomited when reacting, aspirated the vomitus, and developed pneumonia. The final patient was delivered normally, and was apparently well until the twelfth day postpartum. She developed an embolus and infarction in the right lung at that time; three days later she sustained a similar occurrence on the left side and died on the twenty-sixth day from bronchopneumonia.

A case of intestinal obstruction followed a cesarean section done for a marginal placenta previa. This patient was a multipara and a medical induction of labor was attempted without success. A laparotomy done on the fourth day postoperatively revealed the small bowel obstructed at the site of peritoneal closure. The patient died within less than twenty-four hours. There was evidence that the obstruction was present immediately after the section and the diagnosis not made until the fourth day. One other patient died of intestinal obstruction. This patient had the signs and symptoms of the obstruction two days before she was admitted in labor. She was allowed to go home two days after her delivery although still having the same symptoms. Three days later she was readmitted and laparotomy for obstruction was done two days after that. She died within twenty-four hours. The obstruction was due to an adhesive band in the cecal region. An appendectomy had been done about a year before delivery.

Two deaths resulted from tubercular meningitis; both were in known cases of tuberculosis. One of these patients died in another hospital, but since she delivered in our hospital and death took place five days after transferral it is included in our results.

A death due to terminal ileitis and generalized peritonitis is included in this group rather than in the puerperal infections because this condition was known to exist before pregnancy (at the time of an appendectomy). The patient gradually became worse during pregnancy, went into spontaneous labor at about six and a half months of her gestation, and delivered a stillborn fetus. She soon developed signs and symptoms of peritonitis and obstruction. A laparotomy was done in the hope of affording some relief, but she died quickly.

Diabetes played an important role in the remaining case. This 22-year-old primipara was admitted suffering from a poorly controlled diabetes and severe pre-eclampsia. She was edematous to the point of generalized anasarca. Her vulva was markedly swollen. After forty-eight hours of observation a cesarean section was done. The patient had one convulsion soon after section and died within eighteen hours. It is difficult to label a single factor as the cause of death but the diabetes could certainly have been the foundation for the accumulated complications.

SUMMARY

A study of 45 maternal deaths is presented from a maternity hospital essentially a "private" service. No attempt is made at correction of statistics for any of these deaths.

According to the "percentage" the result is good even without correction. Yet a breakdown of the causes of death reveals a definite need for improved antepartum attention, clinical judgment, and therapeusis.

We believe that a definite improvement was made on our service when the active and associate staffs offered consultation services gratis if need be. Consultation was made mandatory in certain grave obstetric conditions.

The establishment of the Maternal Mortality Committee for Harris County (Texas) in 1943 was an outstanding service to the community and the profession. It focused attention on maternal deaths, and it is believed that such an organization works for the betterment of obstetrics in every community.

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CAUSES OF DEATH CHANGE

The changes in the primary causes of death in the United States from 1900 to 1947 indicate that medical care and public health practice are good, an editorial in the February, 1948, issue of *Hygeia* points out.

In 1900, tuberculosis was the first cause of death; today it is seventh. In 1900, pneumonia was second in the number of deaths caused; now, combined with influenza, it is sixth. In 1900, diarrhea and inflammation of the intestines was third; now it is probably fifteenth. Heart disease, formerly fourth in the list of causes, has gone to first place, and cerebral hemorrhage, formerly eighth, is now third. These shifts indicate that infectious disease is being better controlled and that more persons are living to the older ages in which degeneration of tissues occurs and degenerative diseases cause death. Cancer, tenth in the 1900 list of causes of death, now ranks second. It is believed that if the people become aware that cancer diagnosed early can be controlled by the use of surgery, roentgen ray, or radium, cancer deaths can be reduced by one-third or one-half.

DIAGNOSIS OF ACUTE PRIMARY ATYPICAL PNEUMONIA, ETIOLOGY UNKNOWN, IN CHILDREN

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If a conclusion may be based on pediatric literature, it would appear that little attention has been given to the occurrence of acute primary atypical pneumonia, etiology unknown, in children. In my experience in the Gulf Coast area it consistently vastly exceeds in incidence all other forms of acute pneumonic conditions combined in the pediatric age group. Nor has any seasonal variation been observed on which an exception to this statement can be based.

From discussions with many colleagues, it seems that there is a great diversity of opinion as to the true clinical picture, severity, duration, and therapeutic response of this disease. There appears also to be a frequent failure to realize that there is doubtless a nonpneumonic acute respiratory condition, much milder in all of its aspects and revealing no pulmonary consolidation on roentgen examination of the chest, which is probably due to the same etiologic agent,[3] but which is not to be confused with the disease under discussion.

The term "acute primary atypical pneumonia, etiology unknown," while somewhat open to criticism, sets the condition to be discussed apart from other well known forms of atypical pneumonia that are merely complicating features of other diseases or are due to definitely identifiable organisms. Among the forms of atypical pneumonia with which this paper is not concerned should be mentioned those ascribed to the viruses of the psittacosis-lymphogranuloma or ornithosis group[7, 9] and that occasionally are found complicating brucellosis.[2] Acute atypical pneumonia has been reported as a complication of measles, lymphocytic-choriomeningitis, and influenza.[4] Also certain rickettsial infections, such as the rickettsia burneti of Q fever, may be associated with atypical pneumonia[4] Toxoplasmosis, coccidiosis, and other mycotic infections, as well as the pulmonary effects of the so-called eosinophilic pneumonia, may simulate atypical pneumonia. The condition indicated by the title of this paper, when considered in its entirety, is definitely distinct from those just enumerated both as to etiologic and diagnostic features, though in certain details duplication of some subjective and objective characteristics may be encountered.

Read before the Section on Pediatrics, State Medical Association of Texas, Annual Session, Dallas, May 6, 1947.

This discussion is based on personal observation during the past three years of 66 cases of acute primary atypical pneumonia in children of all ages below 15 years. The children have been under intermittent observation since their acute illnesses for variable periods, the shortest of which has been six months. In every case a prompt, thorough clinical, laboratory, and roentgen examination was made, and subsequent to the acute illness periodic complete reexaminations were performed until the initial pulmonary findings had entirely resolved. Where indicated appropriate skin testing was administered, but determination of cold agglutinins was not carried out. In no instance did subsequent events or findings disprove the original diagnosis.

The purpose of this paper is to set forth the diagnostic features of this disease as found at the first visit the physician is called upon to make during the child's acute illness. No attempt will be made to detail the course of the illness after that time.

Seasonal incidence observed was not in accordance with the generally accepted views that this disease occurs chiefly in the colder months of the year. The last three to four months of the year are certainly those of its most infrequent occurrence; while the spring and early summer months are those of its greatest prevalence (table 1).

TABLE 1.—*Seasonal Incidence of Acute Primary Atypical Pneumonia, Etiology Unknown.*

Month	No. Cases
January	6
February	5
March	14
April	5
May	7
June	9
July	2
August	4
September	1
October	1
November	3
December	9

In the Gulf Coast area December, January, and February comprise the coldest months of the year, and in this series of cases that period accounted for a total of only 20, or 30.3 per cent of the whole. The spring months of March, April, and May produced a total of 26 cases, or 39.3 per cent. Nine cases occurred in June, equalling the total for December.

Thirty-seven or 56 per cent of the children afflicted were males; while 29, or 44 per cent were females. The incidence at the various age levels is shown in table 2.

Because of a fatality rate of 1 per cent or less, observations of the pathologic changes of this disease are few. It would seem, however, that the pulmonary process consists of

a patchy interstitial bronchopneumonic type of infiltration originating at the location of the perihilar areas, and progressing peripherally around and between the radiating bronchovascular structures. Exceptions to this, however, are occasionally seen in early roentgen studies in which the infiltration begins about the peripheral regions of the bronchi[3] and progresses centrally to the hilum. This was observed in 2 of my 66 cases. The lower lobes of the lungs are most often involved, though any lobe may be affected. To find the process in more than one lobe is commonplace. The consolidation resembles bronchopneumonia more than lobar pneumonia, the areas being flaccid rather than firm, grayish pink, reddish, or red in color. The mucosa of the bronchi in the affected area is extremely congested and encloses frothy pink, mucoid or thick mucopurulent, sometimes hemorrhagic, exudate. Polymorphonuclear leukocytes are numerous within the bronchi, but in the alveoli and interstitial tissue mononuclear infiltration predominates.[8]

TABLE 2.—*Age Incidence of Acute Primary Atypical Pneumonia, Etiology Unknown.*

Age in Years at Nearest Birthday	No. Cases
1	1
2	3
3	10
4	3
5	12
6	9
7	7
8	5
9	4
10	1
11	3
12	4
13	1
14	3

SYMPTOMS

The symptoms are fairly constant and well known. The insidious onset with manifestations of an upper respiratory infection, gradually mounting fever, harassing cough that in children is seldom productive, moderate prostration, headache, and sometimes with abdominal pain and vomiting progresses through the first two or three days to a remittent temperature that in most cases averages from about three to four degrees above the normal level. Rarely is a child so afflicted apparently seriously ill, cardiac or respiratory embarrassment and cyanosis being unusual, though brachycardia is often noted. Rigors are rare; headache and substernal pain, together with the continual coughing, are usually the only sources of discomfort. During the height of the illness temperature elevations up to 105 F. are by no means uncommon. The disease is definitely self limited, and the fever ordinarily descends by lysis to normal by the tenth to twelfth day, though illnesses of from two to three weeks' duration are occasionally encountered.

Physical examination may or may not reveal suggestive findings. Injection of the nasopharyngeal mucosa is almost invariably present, and, when the disease is seen early, the physician seldom suspects that anything more than an acute upper respiratory infection is responsible for the child's sickness. Within the first forty-eight hours of the onset many cases will present no evidence whatever of pulmonary disturbance to the most thorough physical examination, but the majority will do so by the third day of illness. A few will pass through the entire course of the attack without abnormal external chest findings. Of the 66 cases on which this report is based, 9 did so. When present the signs usually consist of variable types of rales of strikingly various, and often rapidly changing, locations. Physical signs of bronchial exudate limited to a portion or all of one lobe is always suggestive; particularly is this true when the involvement is unilateral. Seldom will rales be heard over the entire chest until the illness is well advanced or the stage of convalescence has been entered. When such a condition is found to exist early in the disease, great care should be exercised to rule out a so-called allergic pneumonia. Percussion dullness of any degree is uncommon in children; the respiratory excursions are normal; and though the respiratory tones to auscultation may be of diminished intensity in certain areas, departure from their normal character is infrequent. In practically every case the external physical signs are not commensurate with the pathologic condition in the chest as revealed by roentgen ray. For abnormal physical signs to be present in only one side of the chest and, at the same time, the roentgen ray to reveal consolidation in both is a frequent occurrence.

The blood findings, while notoriously inconsistent, are of some aid. There seems to be a general impression that in acute primary atypical pneumonia the total leukocyte count of the blood tends to be close to or below the normal level. The blood findings presented from this series are in every instance of the initial examination at which the diagnosis was made and reveal that in only 15 cases, or 22.7 per cent of the series, was the total white blood cell count below the average level for the children's ages; while in 32 cases, or 48.4 per cent, the total leukocyte count exceeded the normal. Definite increase in the leukocytes occasionally is seen in this disease, and its occurrence should not

close the physician's mind to the possibility of acute primary atypical pneumonia. Table 3 gives the total leukocyte counts for the blood of the entire series.

TABLE 3.—*Leukocyte Counts at Diagnostic Examinations for Acute Primary Atypical Pneumonia, Etiology Unknown.*

Ranges of Leukocyte Counts	No. Cases
5,000-5,499	1
7,000-7,499	11
7,500-7,999	3
8,000-8,499	11
8,500-8,999	8
9,000-9,499	3
9,500-9,999	6
10,000-10,499	15
10,500-10,999	2
11,000-11,499	2
11,500-11,999	1
12,000-12,499	1
15,500-15,999	1
16,000-16,499	1

The variations in the percentages of the polymorphonuclear elements of the white blood cells are somewhat surprising (table 4). In 48 cases, or 72.7 per cent of the series, the neutrophils were found to range from 50 to 83 per cent, and in 18 cases, or 27.27 per cent, between 60 and 65 per cent. This is all the more remarkable when it is considered that from 6 months to 6 years of age the normal average level for neutrophils is 40 per cent, and that 38, or 57.7 per cent of these children were in that age group.

TABLE 4.—*Variations in the Percentage of Neutrophils.*

Percentage of Neutrophils in White Blood Cells	No. Cases	Percentage of Series
30-34	6	9.09
35-39	2	3.03
40-44	5	7.57
45-49	5	7.57
50-54	10	15.15
55-59	4	6.06
60-64	18	27.27
65-69	6	9.09
70-74	4	6.06
75-79	3	4.54
80-84	3	4.54

Blood cultures were performed in a number too small to justify reporting, except to say that they were persistently sterile.

As to other miscellaneous laboratory examinations, nothing of immediate diagnostic value was found. Examinations of sputa were certainly not an aid, and determination of sedimentation rates of the red blood cells was valueless. Cold hemagglutinins were not determined. Since observations up to this time indicate that they do not increase to a significant titer before the sixth day of the illness it is unlikely that this test can be effective in the early diagnosis of acute atypical pneumonia. I have had no experience with the heterophil antibody reaction utilizing horse red blood cells as reported by A. B. Adams and others.[1]

Roentgen examination of the chest is of paramount importance in the diagnosis of primary atypical pneumonia. At the outset it must be remembered that this is a pneumonic condition which requires the demonstration of pulmonary consolidation as one of the most cardinal features in arriving at a correct diagnosis, and in the vast majority of cases this can be accomplished only by the use of the roentgen ray. A common error is to base the diagnosis upon a normal or low leukocyte count, fever, and physical findings of an acute respiratory infection, without roentgen examination of the chest. There can be no doubt that a considerable number of cases so handled have entered into the statistics of the severity and duration of acute atypical pneumonia to emphasize falsely the frequency of its mildness.

In the majority of cases there is no visible change to be seen in the chest by roentgen ray until the elapse of the first twenty-four to forty-eight hours of the illness,[5] though exceptions to this statement will often be seen. On the other hand demonstrable typical interstitial infiltration that antedated the onset of the fever has occasionally been observed.[6] When the child is seen early and his clinical condition leads the physician to suspect acute atypical pneumonia, though roentgen examination reveals no abnormality in the lungs, the roentgen examination should be repeated every twenty-four hours for the following two or three days before the possibility of such disease is dismissed.

The first changes noted are increased density of the hilar, and usually the perihilar, shadows in the affected area from which there extends along the radiating bronchovascular structures definite soft lacey infiltration. The density of the hilar shadow becomes more marked, and soft mottled infiltration between the branches of the bronchial tree ensues. Seldom, however, is the infiltration sufficiently heavy completely to obscure the ribs, and outlines of the traversing bronchovascular structures can usually be distinguished. This is in direct contradistinction with the heavy shadow of a bacterial lobar pneumonia. The infiltration may extend outward in a fan-shaped area or as a pointed roughly pyramidal structure having its base at the hilum. Seldom does it extend beyond the midline of the lung field, though occasionally the periphery of the lung will be invaded. In some cases the infiltration circumvents the entire hilum area on the affected side, involving the lung proper for only a short distance. An example of each of these most common types is illustrated in figure 1, upper left and right and lower left.

In less than 10 per cent of cases of acute atypical pneumonia the pulmonary infiltration, as seen by roentgenogram, departs almost completely from the more typical patterns just mentioned, and presents a diffuse, finely nodular mottling that may extend throughout all of one or more lobes. There is, however, always confluence of the infiltration with the contiguous hilum structures.

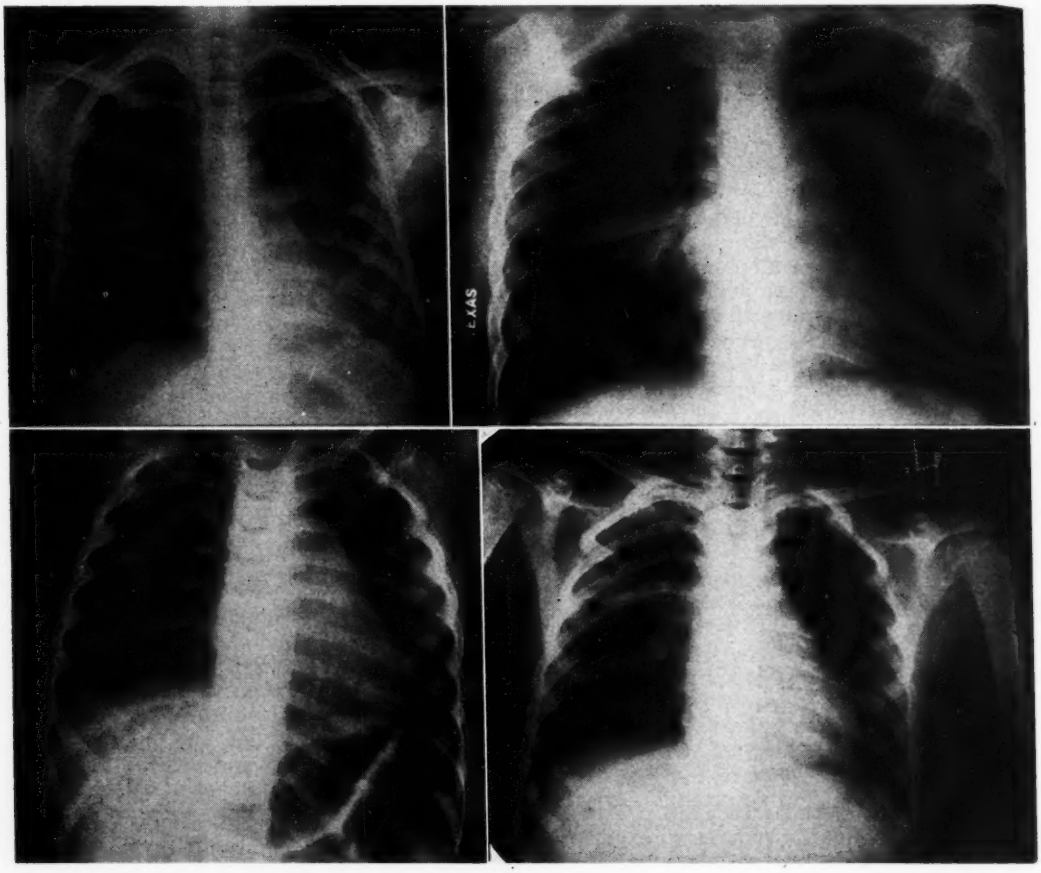

Fig. 1. Upper Left. Roentgenogram showing infiltration in the chest in a case of acute primary atypical pneumonia. The disease was in a girl 10 years of age. The temperature was from 102 to 103 F. orally during twenty-eight hours. The physical examination was negative, and the blood was normal except for 75 per cent neutrophils.

Upper Right. Roentgenogram in a case of acute primary atypical pneumonia in a boy 11 years of age. The temperature ranged from 100 to 101 F. orally during forty-eight hours, and there was a harassing cough and headache. There were moist rales throughout the right part of the chest. Total leukocytes numbered 9,250 with 74 per cent neutrophils.

Lower Left. Roentgenogram in a case of acute primary atypical pneumonia in a 2-year-old girl. She was ill three days with fever of from 102 to 104 F., continual coughing and vomiting. Small and medium moist inspiratory rales were heard throughout the chest. Total leukocytes numbered 5,000 with 43 per cent neutrophils.

Lower Right. Roentgenogram showing diffuse infiltration in the chest in a case of acute atypical pneumonia in a 12-year-old girl. Physical examinations throughout the illness were negative. All periodic studies during the following two years were negative.

This type of picture is confusing with both pulmonary coccidiosis and certain forms of the invasive stage of primary childhood tuberculosis to such an extent that studies during convalescence, by serial roentgenograms and appropriate skin testing, may be necessary ultimately to establish an unquestionable diagnosis. Figure 1, lower right, presents a typical example of such a case.

Reported observations of the pulmonary locations of acute atypical pneumonia in children are practically nonexistent, but in my experience they coincide with those recorded for young adults. In approximately 70 per cent one or both lower lobes is involved, with the left upper, right upper, and the right middle lobes following in that order of frequency. The infiltration seldom occupies an entire lobe. Involvements of two or more lobes simultaneously is common.

In the field of pediatrics the differential diagnosis should first be concerned with elimination of the possibility that the child

may be suffering the invasive stage of primary tuberculosis by repeated sputum studies and serial roentgen-ray studies. Usually the relatively rapid resolution of the infiltration of acute primary atypical pneumonia is decisive, but it is wise to perform tuberculin tests at proper intervals in the months following the acute illness if any doubt whatever exists. The same statement applies to coccidioidomycosis, using coccidioidin test material. Bronchopneumonia of bacterial origin, as well as that complicating other diseases of viral origin, can usually be excluded by thorough clinical, laboratory, and roentgen-ray examination. The clinical syndrome sometimes called allergic pneumonia can at times be differentiated from acute atypical pneumonia only with considerable difficulty. However, in allergic pneumonia a roentgenogram of the chest usually reveals only widespread markings of vascular engorgement, perivascular edema, and atelectasis. Further, its prompt response to adequate administration of adrenalin and aminophylline will usually decide the issue.

In my experience acute primary atypical pneumonia ranks second only to infectious mononucleosis in the ease, and probably the frequency, with which it may be overlooked. To detect the presence of a disease the physician must know the disease and have it constantly in mind. On a few occasions I have found an unsuspected concomitant acute primary atypical pneumonia to be the explanation for the failure of recovery of what was, for example, apparently only a case of acute suppurative otitis media or an acute suppurative paranasal sinusitis. It must never be forgotten that acute primary atypical pneumonia may accompany or complicate any acute febrile disease of childhood of known bacterial origin.

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ABSTRACT OF DISCUSSION

Dr. Robert L. Moore, Dallas: I agree completely with Dr. Greer's statement that primary atypical pneumonia is the commonest form of pneumonia now seen in children. To the introduction of chemotherapy and the use of antibiotics belongs the credit for this situation. Not only have these drugs caused definite improvement in the prognosis of the bacterial pneumonias, but they have also been responsible for the decreased incidence of this type infection. When the infant or child with a severe upper respiratory disease is treated with either a sulfonamide or penicillin, his chances of developing pneumonia due to the usual pyogenic bacteria are small. The decrease in this type of pulmonary infection plus an increasing familiarity with primary atypical pneumonia accounts for its predominance.

I am certain that for every 1 case of this disease diagnosed, there are 10 not recognized. It is as Dr. Greer pointed out, subject to roentgen-ray diagnosis and in most instances when a physician sees a child at home, he does not examine him with roentgen ray, and if, as usual, there are no physical signs, the case is diagnosed as "influenza" or, if there are a few rales without changes in the percussion note or breath sounds, it is diagnosed as "bronchitis." With the present lack of any specific therapy for this condition, a failure to diagnose it does not change the prognosis for the child.

I first became interested in this condition in the army. At no time did we fail to have several soldiers on our medical wards with this condition. Since medical officers could take roentgenograms at will without burdening the patient with expense, we took many chest films in circumstances that would never have been considered as indication in private practice. As a result it was possible to diagnose this disease much more frequently than is usual in practice. In many instances the soldier was not ill at all and had come to sick call because of a mild cough which had not interfered with his duties or his sense of well-being. In other instances the patient would be very ill and complain of severe general malaise and weakness. In many instances it was six or eight weeks before the patients would regain their strength and stamina. And they were not "gold bricks." There was no correlation between the extent of the lesion and the severity of the constitutional symptoms.

RESEARCH TO UTILIZE 100,000 CASES

Medical records of more than 100,000 ill and disabled World War II veterans will be used to aid researchers in their efforts to discover the causes and cures of little-known diseases and unusual injuries, Dr. Paul B. Magnuson, chief medical director of Veterans Administration, has announced.

Object of the program is to analyze the medical records of such veterans, and through study of the history of their ailments and of the medical treatment given, to attempt to arrive at sound medical conclusions and recommendations for the care of others who might incur these same disabilities. The research extends beyond the time veterans are in hospitals to determine causes of relapses and other after-effects suffered in many cases after medical treatment has been given.

The projects will be under the supervision of Dr. Edward Harvey Cushing, former associate clinical professor of medicine at Western Reserve University, Cleveland, and now chief of the Veterans Administration Research and Education Service. Some studies will be carried on in Veterans Administration Hospitals, others in medical schools.

ACUTE LARYNGOTRACHEOBRONCHITIS

MERRILL W. EVERHART, M. D.
SAN ANGELO, TEXAS

Numerous respiratory infections in which laryngeal and obstructive symptoms were outstanding occurred in San Angelo during the late fall and winter of 1946-1947. Most of these varied in degree from mild to moderately severe and responded to chemotherapy and symptomatic treatment. Four, however, were severe, requiring tracheotomy. All patients recovered after a variable course.

Acute laryngotracheobronchitis is an infection of the larynx, trachea, and bronchi, with fever, edema of the larynx and subglottic region, formation of thick, sticky, gummy secretions which partially or totally occlude the airways, and which, if unrelieved, leads to toxemia, exhaustion, and death. It is predominantly a disease of infancy and early childhood. While any organism may be the offender, the streptococcus is most often found.[1]

DIAGNOSIS

Early in the disease it is difficult to differentiate between acute laryngotracheobronchitis and simple catarrhal laryngitis as both diseases appear to be a part of an upper respiratory infection dominated by laryngeal and obstructive symptoms and manifested by fever, croupiness, hoarseness, an inspiratory stridor and in expiratory wheeze. With the advent of increasing dyspnea and restlessness, increasing fever and cyanosis, the diagnosis of acute laryngotracheobronchitis becomes obvious. Increasing dyspnea is shown by a sharp inspiratory stridor with marked retraction at the suprasternal, supraclavicular, and intercostal spaces and at the epigastrium. Increasing restlessness is evidenced by the infant in constant motion, whether in bed or in the arms of the mother, the head held in extension with the mouth open, fighting for air. Increasing dyspnea, restlessness, and cyanosis are the danger signals and demand establishment of adequate airways before exhaustion occurs. When exhaustion sets in, cyanosis is replaced by an ashen pallor and the infant becomes ominously quiet as contrasted with his extreme restlessness before. Any chance for recovery is probably then passed.[2]

Other conditions to be considered and eliminated by endoscopic examination are laryngeal diphtheria and foreign bodies, particularly vegetal foreign bodies, which cause an intense inflammation of the tracheobronchial tree.[4]

Late in the course of this disease it may be mistaken for pneumonia or asthma.

TREATMENT

The infant or child should be hospitalized in a room saturated with moisture and with the temperature between 70 and 75 F. Adequate fluid intake should be assured by means of a bottle, medicine dropper, nasal catheter, or parenterally. Physical examinations, nursing, and laboratory procedures should be held to a minimum in order to let the child rest. Chemotherapy in the form of sulfadiazine may be instituted, at least until the offending organism is known and penicillin started. Penicillin in oil and wax once or twice daily is desirable in order to lessen the number of disturbing injections. It is important that sedatives not be given as they mask air hunger, one of the danger signals. Neither should atropine, which thickens the already thick secretions, nor morphine or its derivatives such as codeine cough mixtures, which depress respiration and inhibit the cough reflex, be used.

A bronchoscopist, if available, should see the patient on admission and may by endoscopic examination exclude laryngeal diphtheria and vegetal foreign body; obtain cultures; and aspirate secretions for relief of dyspnea. Two factors are at work in this disease to produce diminished airways: the subglottic edema and the thick secretions. If bronchoscopic aspiration fails to relieve progressive dyspnea, tracheotomy is indicated. The tracheotomy prevents immediate death. It by-passes the subglottic edema and allows for easier means of getting at the obstructive secretions.[3]

Post-tracheotomy care is, of course, the domain of the bronchoscopist or surgeon and is not within the scope of this paper. However, teamwork between the medical and surgical attendants is essential in the postoperative period, for with tracheotomy the fight for life has just begun. The physician's part in the postoperative care, besides assuring himself of the proper room temperature, moisture, adequate rest, adequate fluids, chemotherapy, and diphtheria antitoxin, if indicated, is to be on the alert for bronchial obstruction produced by the thick secretions or dried crusts. Obstructive emphysema or obstructive atelectasis may occur, depending upon whether a bronchus is partially or totally occluded. Clinically if dullness to percussion is found together with diminished breath sounds, the condition is obstructive atelectasis; if, however, weak or

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distant breath sounds are heard in combination with a tympanitic percussion note, it is probably obstructive emphysema. If the clinical picture is vague, inspiration and expiration films or fluoroscopy will disclose the true picture. In obstructive atelectasis, the mediastinum remains shifted to the affected side in both inspiration and expiration. In obstructive emphysema, there is a shifting of the mediastinum away from the affected side on expiration and back to the affected side on inspiration.[5] If suction by means of a soft rubber catheter attached to an electrically driven suction machine fails to relieve the obstruction, the bronchoscope may be inserted through the tracheal opening for aspiration of the secretions or removal of the dried crusts.[6] Alertness for and relief of bronchial obstruction are fundamental in the postoperative period.

COMMENT

During the epidemic which began about the middle of November, 1946, I saw 38 patients with acute laryngotracheobronchitis. Twelve were hospitalized and of these, 2 (cases 1 and 2) required tracheotomy. Dr. R. M. Arledge saw 29 patients, 11 of whom were hospitalized; 1 of these (case 3) required tracheotomy. The fourth patient requiring tracheotomy was attended by Dr. Cecil French. The figures given here of course do not represent the total cases which occurred in San Angelo. Table 1 summarizes the pertinent data for the 4 cases requiring tracheotomy and mentioned above.

TABLE 1.—*Summary of 4 Cases of Acute Laryngotracheobronchitis Requiring Tracheotomy.*

Case No.	Age & Sex	Length of Illness Prior to Hospitalization	Length of Observation Prior to Tracheotomy	Postoperative Day Temperature Became Normal	Postoperative Day Chemotherapy Discontinued	Total Hospital Days	Remarks
1 (R.C.)	7 mo. M.	Unknown	23 hr.	8th	5th Sulfadiazine 8th Penicillin	21	Received 7,500 units diphtheria antitoxin. Tracheal culture reported "no diphtheria organisms seen." Tube out on 10th day.
2 (J.M.)	4 yr. F	24 hr.	5 hr.	5th	2nd Penicillin 3rd Sulfadiazine	8	Gram-positive cocci in groups and short chains in tracheal culture. Tube out on 6th day.
3* (W.H.)	4 yr. M.	12 hr.	8 hr.	6th	7th Penicillin	15	Gram-positive cocci and gram positive rods in tracheal culture. Tube out on 12th day.
4** (J.Z.)	10 mo. M.	48 hr.	3¾ hr.	5th	8th Penicillin	29	Few gram-positive cocci and many gram-negative rods in tracheal culture. Tube out on 20th day. Received Sulfolac between 5th and 10th days.

*Patient of Dr. R. M. Arledge
**Patient of Dr. Cecil French

The patient in case 1 was given diphtheria antitoxin without waiting for a report on a culture of tracheal secretions. The culture was later reported negative for diphtheria. On the eleventh postoperative day the patient developed bronchopneumonia, which quickly responded to chemotherapy. This patient, the youngest of the series, was syphilitic and is said to have had roentgen treatments for an "enlarged thymus" at 2 weeks of age.

Ten of my hospitalized patients who did not require tracheotomy averaged four days in the hospital.

Approximately two-thirds or 26 cases of acute laryngotracheobronchitis were treated by me in the home. Throat cultures were taken and Schick tests were done on patients not recently immunized and on those who had never been immunized against diphtheria. It should be mentioned that while tonsillar diphtheria was present in the community, none of our cases with laryngeal and obstructive symptoms, whether followed at home or in the hospital, proved to be diphtheritic in origin as evidenced by the clinical course. Sulfadiazine was given to each patient and some patients received from 150,000 to 300,000 units of penicillin in oil and wax. Mothers were instructed to maintain a warm, moist atmosphere, urge fluids in any form, and to be on the alert for increasing restlessness, high fever, "blueness," and "sucking in at the throat" and at the "pit of the stomach." Patients treated in the home had normal temperatures by the third or fourth day, though a croupy cough and huskiness of the voice persisted from one to two days longer.

There were many instances of 2 or more cases among infants and children of the same family. In one family there were 4 ill at the same time, the youngest age 15 months and the oldest 7 years. A 4-year-old boy (case 3) who required tracheotomy became ill at the same time as his 2-year-old sister. She ran a stormy course for forty-eight hours but recovered without operation.

In an epidemic such as this the physician can only wonder whether in some infants and children there is a less extensive invasion of the respiratory tract, an increased resistance on the part of the individual, or

whether chemotherapy plays an outstanding role. It is inviting to think that chemotherapy, in addition to rest in a warm, saturated atmosphere does play an important part, not only in reducing the number who require tracheotomy, but in shortening the postoperative period as well. It is unfair, however, to withhold tracheotomy in the hope that chemotherapy will turn the tide. Tracheotomy, to be effective, must be done long before exhaustion occurs. Fundamentally, tracheotomy is the choice of treatment for establishment of airways; it perhaps prolongs the life of the patient sufficiently to allow chemotherapy to become effective.[3]

SUMMARY

1. An epidemic of respiratory infections in which laryngeal and obstructive symptoms were prominent is described.

2. Important points in the diagnosis, differential diagnosis, and treatment are briefly presented.

3. Four severe cases of acute laryngotracheobronchitis, requiring tracheotomy and with recovery in each instance, are described.

4. Early diagnosis and early tracheotomy together with maintenance of open airways and chemotherapy are important factors in obtaining a zero mortality rate in this disease.

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ABSTRACT OF DISCUSSION

Dr. C. S. E. Touzel, Fort Worth: Dr. Everhart has covered well an important subject. Acute laryngotracheobronchitis at times calls for the best combined efforts of a pediatrician, ear, nose, and throat specialist, and hospital staff. The physician does well not to underestimate the gravity of this disease. I can add nothing to this almost classic description of the typical air hunger and its ominous aftermath, the quiet nondyspneic pallor of complete exhaustion.

I would like to refer to the curve of incidence of this disease, which parallels exactly that of influenza with a two or three week lag in spite of the fact that most observers believe that the Streptococcus is the most frequent causative organism. Recently H. influenzae type B has been isolated in several cases of laryngotracheobronchitis, and it is suggested that type specific antiserum might be of value in the treatment of these cases.

Dr. James H. Harris, Marshall: Dr. Everhart has given a splendid paper. I agree with everything he has said, and am definitely of the opinion that treatment such as he has outlined will lessen the number of those who require tracheotomy and will shorten the postoperative course of those who do require it. By way of emphasis, I would call attention again to the emergency nature of these cases. A child may go to bed apparently well and require a tracheotomy before morning.

The laboratory report from case 4 showed few gram-positive cocci and many gram-negative rods from the tracheal culture. A good many cases of acute laryngotracheobronchitis have been reported since 1941 in which the positive organism was proven to be Hemophilus influenzae, type B. As Dr. Everhart stated, the disease may be caused by any organism. In those due to type B, H. influenzae, there is a potent therapeutic agent in addition to the sulfonamides and penicillin, that is, type B, H. influenzae rabbit antiserum. Jordan and Turner, reporting 4 cases in 3 of which the antiserum was used, expressed the belief that the use is life-saving in some cases and may prevent the necessity for tracheotomy in others if used early.

Alexander concluded that the capacity of sulfonamides to effect complete recovery from type B, H. influenzae infection is influenced by two factors: (1) the infection must be relatively mild, and (2) the drug must be started early in the course of infection. She considered that only under such conditions will sufficient time be afforded for the patient to produce through his own powers sufficient antibody to overcome the disease. If the infection is due to H. influenzae, it would seem advisable to use antiserum early. It is not necessary to wait for a culture. If material from nasopharyngeal swabs, the trachea, or larynx show organisms morphologically resembling T. influenzae, they can be rapidly typed much as pneumococci typing is done.

COOPERATION OF THE PRIVATE PHYSICIAN IN SCHOOL HEALTH WORK

I. P. BARRETT
FORT WORTH, TEXAS

In 1894, following a series of epidemics among school children, Boston established the first regular system of medical inspection in the schools of the United States. School medical service grew rapidly and expanded its activities from the control of communicable disease to include health examinations and steps toward the correction of physical defects.

School nursing was inagurated in 1902, with the appointment of twenty-five school nurses in New York City. In 1903, the first school dentist was appointed in Reading, Pa. In 1910, in New York City, occurred the first formal installation of school lunches in the United States. In 1914, ten dental hygienists were introduced into the schools of Bridgeport, Conn.

During 1918 and the years immediately following, there developed a widespread interest in the promotion of the health of school children through health education. This modern program of health education, which emphasized hygienic living rather than factual instruction, was made possible

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by the national interest in the health of children and youth, stimulated by World War I. It was vigorously promoted by the Child Health Organization of America, the National Tuberculosis Association, and the other agencies interested in the health of children, and the movement has continued to gain force.

RESPONSIBILITY WITHOUT ORGANIZED HEALTH PROGRAMS

In areas where there are no organized school health programs or where there is no local health unit the entire responsibility for school health programs will depend on the local private physicians, aside from the health instruction which should be given by the teachers. Physicians should be willing to assist in a program of examination of pupils either on a routine basis or on the basis of referrals by teachers. Of course, it is expected that those families which are financially able will take care of the needs of their own children. In every community, however, there are some children whose parents are financially unable to provide for their medical care; these children are entitled to the best care that a community is able to provide.

Where there is more than one doctor in a community there should be a working agreement for assisting the schools in their program, either on a year about or some other equitable basis. Personally, I believe that the doctor is entitled to pay for services rendered to school children in a routine manner; however, if a doctor accepts the responsibility of doing the work, either paid or not, he should give the best that he is capable of giving. It is imperative in areas with no local health unit that the family doctor assume the responsibility of notifying the schools of cases of contagious diseases and to instruct the parents not to send other children in the family to school, except in certain diseases such as measles and chicken pox in which there is a period when it is safe for the contacts to be in school.

If the school carries on an athletic program, all children participating should first be examined to see that they are physically fit to engage in the activity without injury to themselves.

The doctor should consider it a privilege to be of assistance to the superintendent and the individual teachers in assisting them to secure reliable factual information for use in teaching health education. There are a number of sources from which this material can be obtained, some of the best among them being the State Health Department, the American Medical Association, the American Red Cross, the American Public Health Association, the Metropolitan, Aetna, and Prudential Life Insurance Companies, the National Tuberculosis Association, the Children's Bureau of the Department of Labor, and *Hygeia*.

COOPERATION WITH SCHOOL HEALTH PROGRAMS

Immunization.—I believe that it is the responsibility of every physician to try to have all children under his care ready to enter school by doing the necessary immunization prior to their admission, particularly vaccination against smallpox and immunization against diphtheria, which are required by many systems. It is generally recognized by public health authorities that vaccination should be done the first year of life and repeated just before the child enters school. Immunization against diphtheria should be started about the ninth month of life, followed by a Schick test at the end of six months after the last injection. The Schick test should be done at intervals, with the last one shortly before admission to school. If the doctor immunizes the child against whooping cough, this information should be sent with the other immunization record to the school. It is also desirable that correctable defects be corrected before the child starts to school. I know of no person who can do a better job of selling this type of program than the family physician.

In Fort Worth we are glad to furnish every doctor with blanks to be filled out showing the child's general physical condition. These blanks can be incorporated into the child's school health record. Every year we try to contact all parents who have a child entering school for the first time, requesting that they have the child examined by the family physician before he enters school. I believe that this gives the doctor an excellent opportunity to finish any needed immunization and also to sell the parents on the desirability of regular physical check-ups for their children.

Communicable Diseases.—Every doctor has the responsibility to the public of referring communicable diseases to the local health department, either the city or county, and in cases where contagious disease is suspected and the diagnosis has not yet been confirmed, he should take the same precaution. Contacts to either cases or suspected cases should be kept out of school until the diagnosis is certain, except in those minor conditions where there is a safe waiting period for the contact to be in school. It is

disconcerting to the school and city health department to have a parent state that the doctor diagnosed the case as scarlet fever or other contagious disease and then to find that the case has not been reported and that other children from the home are in school. Frequently, when the doctor is contacted he reports the case as suspicious, but without final diagnosis. Having spent several years in private practice, I recognize that occasionally these are oversights, but this makes it difficult to control outbreaks. Sometimes our first knowledge of a case comes when a second case breaks out in school. The longer period of time that elapses between the diagnosis of a case and its report to the city or county health department, the greater the chances of a secondary case occurring in the schools without the school authorities being notified and being able to be on their guard. When the School Health Service knows of a case occurring in the school, we send a room exposure notice to each parent and they are told to be on the alert for early signs of the disease. The school nurse is available to assist the teacher with room inspection when needed.

One of the biggest problems in the control of communicable diseases is and always has been the fact that many parents will send sick children to school, sometimes because the child is desirous of maintaining a perfect record and sometimes because the parents have something else they want to do. The family doctor can probably do more to sell the public on the desirability of keeping the sick child at home than all the school nurses and school teachers put together.

I would ask for a little closer cooperation with the family physician when a child is sent home from school with a temperature or a rash and a request to see the family physician. The doctor should not send the child back to school too early and at least not without seeing him. The child is taken out of school because it is considered better for one child to miss one or two days rather than to expose the entire class. I think frequently the doctor bases his decision on whether or not it will hurt the individual child personally. The other children in the room and in the school should be remembered.

Defects.—In the Fort Worth schools we examine children in the first, fourth, seventh, and tenth grades; those children new to the system; and children who are referred by the teacher or nurse because they do not appear well. The examination done by the school is rather brief, including mainly the nose, throat, eyes, and chest with some attention being paid to posture. I recognize that a more complete examination is desirable, but lack of personnel makes this impossible. In addition to this inspection all children have their vision tested annually by the school nurse. Children in the fourth grade and those new to the system are tested with the group audiometer, and all children are weighed and measured twice a year.

Children found on inspection to have defects or those showing deviation from normal in hearing, vision, or growth development are requested to visit their family physician for his examination and advice. Sometimes the children return with statements that their family doctor has made remarks belittling the efforts of the health department. Of course, the children frequently misquote the family physician; on the other hand there have been some instances in which their statements were not misquotations. If the family physician would only recognize that we are trying to get children whom we suspect of having defects or of needing corrections into their hands for advice in order that defects can be located as early as possible, we believe that his attitude would be a little more kindly.

All children who go out for competitive sports in the Fort Worth Schools are required to pass a physical examination. A similar requirement should be met in all schools. Children who are blind in one eye should not be permitted to participate in the more strenuous sports, particularly football, basketball, and boxing. Children with hernias should be restricted from some sport activities. Usually it is my policy to refer the child with a hernia to the family physician for his opinion as to whether or not it will hurt the child to participate. By using this procedure the physician and the family will know that the child has the hernia and will be enabled to make plans to correct it. I try to judge all youngsters on the following basis: "If you were my youngster, would I permit you to participate?" I think all physicians would do well to use the same criterion for their judgment.

Any person being employed by the Fort Worth Board of Education is given a physical examination, including a roentgenogram of the chest. In addition an annual examination is made by the School Health Service. I have recommended roentgen examinations at regular stated intervals but our board has not yet adopted such a plan. I do have the right, however, to recommend roentgenogram of the chest or any other special test or examination that I consider necessary for any teacher. I believe that

any physician who has the responsibility of examining school teachers should have that privilege. Examinations are also given to teachers suspected of having emotional instability or developing some illness during the year, upon the request of the principal, supervisor of any department, or the nurse. I believe that every physician who treats or examines a teacher, particularly one who is referred to him by the school health department, should ask himself this question: "Would I be willing for my child to sit in that teacher's class each school day?"

All teachers who have been out because of any illness or accident for more than ten calendar days are required to come through the Health Service for readmittance. I find that teachers are frequently all too anxious to return to work and their doctors frequently say they are able to do so before they are actually fit. When the school health authorities request a statement from the family doctor, I believe that they are entitled to a fairly complete case history, including diagnosis and prognosis.

Physically Handicapped.—The State Department of Education has made funds available to all school systems for a special program for physically handicapped children. The bill specified that these children must be educable. Many a handicapped child does not come to the attention of the schools because frequently the family has no other child of school age, and recognizing the handicap, makes no attempt to send him to school. The schools need to know of these children in order to take care of as many of them as possible; however, the doctor owes it to the parents to tell them when the child is not capable of learning. It will be a great benefit to the school if, when the child is referred by the family physician to the school for the handicapped, he will outline briefly the physical condition and the type of activity and rest periods required. The fact that a child is confined to a wheel chair does not eliminate him from school, but a child must have control of kidneys and bowels.

Emergencies.—One of our biggest problems involves children who suddenly become ill or are injured and we are unable to contact the family. We have asked all parents to give the name of their family doctor and their permission to his being called. The family physician can be a great help to the schools by encouraging parents to do this, and then coming to our assistance when a child is injured. The schools limit their work on cases of this type to first aid only, and we do not given medicine to sick children.

A program of cooperation such as outlined above, I believe will be profitable both to the private physician and to the Board of Education, but I think the one who will profit most is the child, who is and should be our first concern.

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ABSTRACT OF DISCUSSION

Dr. Horace E. Duncan, Dallas: Dr. Barrett has covered the essential points of a well developed school health program with proper emphasis on the participation of private physicians. Two points that have not hitherto been discussed occur to me as being highly important:

1. For administrative efficiency, I would propose a combination of school health services and other existing local health agencies, such as the county, city, and related organizations, including the Visiting Nurses Association. The reasons are legion, a few of which are to prevent duplication of services, to insure continuity of service, and to allow specialization within the organization.

2. To improve the school health program, I would propose a separation into (a) the general medical service and (b) medical service for the athletic department. I have had a direct responsibility for the latter during the past year for the Board of Education, Dallas. So many delicate relationships developed with private physicians that a complete and mutually understood plan for such care was mandatory. There were 5 serious injury cases requiring surgery, the cost of which would average about $250. Private physicians in this city became intensely interested. Each parent had the authority and opportunity to consult his family physician as to the selection of a specialist. This was as it should be. The matter of consent slips and releases for minors was a classical example of the means employed to "cover" these health services.

As to the general school health program, I have been amazed by the course of instruction in first aid. Other courses of instruction, demonstrations, and services are of the same superior character, the excellence of which depend on private physician participation.

These suggestions and those of Dr. Barrett are an indication of the continuing need to educate private physicians that they are necessary and are welcome within a school health program if we are to perform the services and produce the benefits that are both needed and desired.

Dr. R. B. Wolford, Dallas: I want to defend the private physicians in the school health program, especially in areas where there are no health units. While doing field work for the State Department of Health, I found that the usual procedure for holding a clinic was to set the day and hours, contact workers among teachers and parents, get everything ready, then phone the physicians asking them to be present to make the examination. Often they had already made engagements for that time and could not be present and were criticized for not helping in the program. I told groups when I had the chance that the physicians were the most important cogs in their machinery, and that they should consult the physician first and then arrange the rest of the program to fit in with the physician's time. I believe in that way the cooperation of the medical men will be secured.

I also want to say that when any physician sees 40 or 50 children per hour, whether he is a school physician or any other physician, he is not making an examination; it is only an inspection.

THE LEFT DOMINANT CHILD

EMMETT T. BYROM, M. D.
DALLAS, TEXAS

The special motor disability which interferes most widely with the ordinary tasks of the classroom is left-handedness. In a right-handed, right-eyed world, left-handedness and left-eyedness constitute hazards. There are many theories as to why a person may be left dominant, that is, perform dexterities with the left hand and foot and be left-eyed. It is well known that the left side is dependent upon the natural activity of the right cerebral cortex and that the speech center is located in the controlling hemicortex. Dominant handedness represents the hand of inherent power due to some hereditary factor in neural organization. Left-handedness is probably a mendelian recessive characteristic.

Some confusion is suffered by many persons who are left-handed or left-eyed, but their difficulties are increased if their left-handedness is changed by training to right-handedness. Even the presence of right-eyedness does not mean that learning efficiency will be increased by changing to the right hand. Confusion is further increased when the eye-hand dominance is crossed. Approximately 80 per cent of stable children show preference for right hand, right eye, and right foot. Six per cent show preference for left hand, left eye, and left foot. Sixteen per cent have crossed preference. It has been fairly well proven that more children who are emotionally unstable tend to have undetermined preference for eye, hand, and foot than the emotionally stable.

Nature, in giving us two hands, has apparently arranged a division of labor between them. Each hand has its function. One is used for more active movements, the other for steady postures; one for finer skilled actions and the other for coarser mechanical movements. With most people, the more delicate tasks are allotted to the right. The left hand holds the gun, the right pulls the trigger; the left holds the book, the right turns the pages; the left steadies the dress material or writing paper, while the right hand manipulates the needle or pen. Generally speaking, the left hand takes the bulkier of the thing to be used, holding it firm and still, while the right handles the smaller object or the motile part and carries out the active and nicely adapted movements of the finger and wrists. In this way we avoid hesitation and effort that we would have if we were ambidexterous and had to decide on every occasion which of the two hands to employ. Dominance, therefore, is an important achievement.

The right dominant person tends to execute all dexterities with the right hand. The eye-hand movements are naturally from the body to the right. Almost every invention is made for the convenience of this group. The left dominant child tends to execute all dexterities with the left hand. The eye-hand movements are, therefore, from the body to the left. The small child in this group first builds with his blocks to the left, marks on the blackboard from the body to the left, and sees any series of objects in a left direction. Hand preference begins at about the ninth month of life when the child begins to take hold with the dominant hand. The problem is to discover left dominance early and begin careful training so that he may more easily perform right-handed movements.

Eye dominance is an important factor to be understood in the training of any child. In normal vision both eyes focus on the same object. One eye leads, stops to rest on the object, and fixates it. When the right eye is leading, it normally moves smoothly from the body to the right, fixing objects, while the left eye stops in unison, aiding and enlarging the field of vision. When the left eye is dominant it normally leads in a smooth span from the body to the left, the right eye aiding. The left eye can fixate easily in its normal direction, but when it must reverse its movements so as to go from the body to the right, fixation becomes more difficult. The leading left will continue to make many left movements. This leads to confusion and often to persistent reversals. Letters and words which have similar appearance are reversed: "b" becomes "d"; "p" looks like "q"; "t" may be seen as "f." The right side of a word or object is fixed first and "was" becomes "saw" and "pin" becomes "nip." Similar numbers are also called in reverse.

Reversing numbers often persists through high school and is responsible for many errors in written tests and examinations. Left dominant adults often give a pair of telephone numbers in reverse order. This will occur most often when two of the numbers are similar; for example, if the four numbers are 2355, the left dominant person will often give the number as 3255. My left dominant housekeeper, who takes care of most of the resident calls, often reverses two of the numbers. I thought she was careless until it dawned on me that she was extremely left dominant. Now, when I get

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a wrong number, I reverse her numbers in pairs and usually find the correct one.

TESTS FOR DOMINANCE

The use of the foot is not always consistent but about 85 per cent of the left-handed persons hop and kick with the left foot. There is no real disability in footedness but it is important for determining the complete right or left dominance. The more important foot tests determine with which foot the child (1) steps up, (2) steps off, (3) steps down, (4) kicks, (5) hops, (6) presses, (7) kicks a ball toward a distant object, (8) pushes a ball along a straight line, and (9) mounts steps. The public has recently had its attention called to the activities of a 13-year-old boy, born without arms, who writes legibly with his left foot.

To determine the leading eye, the following methods may be used: A card containing a hole about .5 inch in diameter may be given to a tiny child with the request that he look at a distant object through the hole, holding the card first in the right hand and then in the left. He will generally look through the hole with his leading eye. An older child may be asked to look down the barrel of a gun or a stick used as a gun, sighting a distant object. He will sight with the leading eye. In children where habit may have changed the sighting method, the prism tests are fairly accurate. In this test, glass prisms are placed over the eyes so that looking at one object, two are seen, side by side. The head is gently rocked from side to side. One object will move; the other will remain stationary. The eye seeing the fixed object is dominant.

The following tests may be used for handedness: throwing a ball, reaching for a near object, energetic reaching, and pointing.

The most important creation by man is probably the written page. Every child lives in eager anticipation of the day when he may go to school and learn to read, write, and count. However, it is no mean task under the best of circumstances to learn reading, writing, and arithmetic, and before entering school, every child should understand the body to the right movements to aid him in learning.

In most tests for quickness in writing, the average left-handed person reaches four-fifths the speed of the right-handed. This means that in any written exercise or examination, the right-handed can get 20 per cent more work done in the same length of time. The reasons are clear. First of all, it is easier to pull the pen than to push it. Second, the right hand does not obstruct the view of what has just been written. When the left hand holds the pen, the reverse direction is more natural. To work from left margin to right involves a clumsy shove. These visible results are seen by almost every teacher.

The indirect inner and temperamental consequences often go unobserved. Day after day at his desk in the school room, at his games on the playground, over the dinner table at home, the left-handed child is made to feel that he is peculiar, that he is not as other children are, and that he is unable to follow the most ordinary routine in the same way as others. He may gradually acquire a permanent distaste for every lesson, task, or pastime in which his hands have to assist. If harsh methods are publicly used, he may come to hate school and human companionship and even grow moody and secretly resentful.

All children with left dominance do not have difficulties. Nor do all children converted from left to right, or vice versa, acquire educational disabilities. Management of the eye-hand dominance relationship must take into consideration factors inherent in the total personality. The factors at work and the difficulties to be met differ so much in different individuals that no universal rule can be laid down. The teacher, parent, and doctor must learn to discriminate between the various cases. Points to be taken into consideration are the apparent strength of the handed impulse, the age and fixedness of the left-handed habit, the dexterity or lack of dexterity shown by the right hand, the practical handicap that the individual child may suffer if allowed to grow up completely left-handed, and most important of all, the child's individual temperament.

We have all known right-handed children to injure the right hand or break the right arm. Such a child is temporarily trained to be left-handed. This change entails no worry, no strain, and no exhaustive efforts. Perhaps the fact that the other hand is unavailable prevents a great deal of conflict. Usually the child is a little proud rather than ashamed of this defect, because he has made another achievement and wins sympathy instead of rebuke.

It is striking to note that Wisely,[8] in a study of 18,000 pupils, found that only 6 per cent of the right-handed children were grade repeaters and 12 per cent of the left-handed, while 15.8 per cent of those converted from left to right repeated. This is at least significant of the fact that left dominance presents a definite behavior reaction so far as school and learning are concerned. The right-handed school world of-

fers varying and increasing difficulties to the right, the left, and the converted lefts, and these difficulties are not correlated directly with intelligence quotients.

Any child in the third grade or higher grades who masters arithmetic, has a good vocabulary, and understands the material used in general classroom discussion but cannot read or spell presents a problem which should be solved on the basis of proper hand-eye training. There are many bright children in this group who have been called stupid and of low intelligence. Often these children will fail in written exercises and examinations but excel in any oral discussion of the same subject. These children have high intelligence quotients and should not be penalized because of an eye-hand disability. This group should be discovered by teachers or doctors or parents and be given special training in thought, reading, and memory exercises. Their examinations should be conducted orally and proper allowance made for the disability.

Handedness should be discovered within the first year of life, and if the child is found to be left dominant, many right-handed habits should be established if possible before the child learns to speak. This can best be done by placing any articles that he is likely to want near his right hand and out of reach of his left and by turning his chair or by moving his table so that the table is by the right side of his body. Where this has been done, the child has generally shown little inclination either towards left-handedness or stuttering. The success of such training, whether during babyhood or the first few years of life, will depend largely on the nervous and muscular mechanism that controls the right hand itself. By short trial tests, the psychologist or teacher should try to determine how far the child can be trained in this respect. The left-handed child who is clumsy with his right hand and not very dexterous with either is a case for cautious exercise in right-handed habits. The child who is genuinely left-handed, left-eyed, and left-legged will show a marked difference in ability between the right hand and the left, and will frequently resist the best planned endeavors.

A consideration of brain structure and the relative position of the motor areas indicates possible nervous derangement when cerebral function is interfered with. The fact that the left side and hand are dependent upon the right cerebral lobe, and the right side and hand are dependent on the left lobe, suggests that there are inherent natural tensions when these modes of transmission are reversed and the left hand is called upon to move in accordance with directions and controls issuing from its biologically nondirective left cerebral lobe. Confusion is evident because this change involves primary stimulation of the right lobe with a redirection of impulses to the left lobe.

Studies of cerebral localization show that speech areas and the area of eye movement as well as those of the hand, mouth, lips, and tongue are not far from the areas concerned with writing, including movements of the wrists, fingers, and thumb. This would appear to be the organic basis for motor disabilities in writing, reading, and speaking. The teaching of the left-handed child to use his right hand is likely to produce a stammer. Left-handed children should generally remain left-handed for writing. The slight advantages that might be gained from the change are outweighed by the dangers to speech.

MANAGEMENT OF DOMINANCE

The management of dominance may be divided into the following groups:

1. Reeducation of the family concerning the meaning of the child's behavior and its relation to eye-hand dominance. Possibly 10 per cent of the children will make exceedingly poor progress because of the lack of family understanding or failure in continuous effort.

2. Education of the school as to the nature and meaning of the inadequacy of the child and as to the advisability of setting up a series of adjustments in the school program that will provide for progress of the left dominant child in terms of his intelligence quotient and for remedial training, particularly in reading.

3. Determination of eye dominance of children prior to admission to school. This would make possible early and promising efforts required to harmonize the eye-hand relationship.

4. Partial reorganization of the personality of the child.

The left dominant child should be discovered early by the pediatrician. The parent should then be advised as to the importance of his learning to perform movements from the body to the right with some degree of dexterity before he reaches school age.

1617 Medical Arts Building.

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7. Wile, I. S.: Eye Dominance, Arch, Ophth. 28:780-790 (Nov.) 1942.
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MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Houston, April 26-29, 1948. Dr. B. E. Pickett, Sr., Carrizo Springs, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth 3, Secretary.

American Medical Association, Chicago, June 21-25, 1948. Dr. Edward L. Bortz, Philadelphia, President; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secretary.

NATIONAL AND REGIONAL

American Academy of Allergy. Dr. Will C. Sprain, New York, President; Dr. Theodore L. Squier, 424 East Wisconsin Ave., Milwaukee, Secretary.

American Academy of Dermatology and Syphilology. Dr. Clyde L. Cummer, Cleveland, President; Dr. Earl D. Osborne, 471 Delaware Ave., Buffalo, N. Y., Secretary.

American Academy of General Practice. Dr. Paul A. Davis, Akron, Ohio, President; Dr. Mac F. Cahal, 20 N. Wacker Drive, Chicago 6, Acting Executive Secretary.

American Academy of Neurological Surgery. Dr. William S. Keith, Toronto, Canada, President; Dr. T. C. Erickson, 1300 University Ave., Madison 5, Wis., Secretary.

American Academy of Ophthalmology and Otolaryngology, Chicago, October 12-17, 1948. Dr. C. H. McCaskey, Indianapolis, President; Dr. W. L. Benedict, Mayo Clinic, Rochester, Minn., Secretary.

American Academy of Pediatrics, Atlantic City, November 20-23, 1948. Dr. John A. Toomey, Cleveland, President; Dr. C. G. Grulee, 636 Church St., Evanston, Ill., Secretary.

American Association for Thoracic Surgery, Quebec, 1948. Dr. Alton Ochsner, New Orleans, President; Dr. Brian Blades, George Washington University School of Medicine, Washington, D. C., Secretary.

American Association of Genito-Urinary Surgeons, Skytop, Pa., May 12-14, 1948. Dr. C. E. Burford, St. Louis, President; Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago, Secretary.

American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, Hot Springs, Va., September 9-11, 1948. Dr. Robert D. Mussey, Rochester, Minn., President; Dr. L. A. Calkins, University of Kansas Medical Center, Kansas City, 3, Secretary.

American College of Physicians, San Francisco, April 19-23, 1948. Dr. Hugh J. Morgan. Nashville, Tenn., President; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secretary.

American College of Radiology, Chicago, June 20, 1948. Dr. Edwin C. Ernst, St. Louis, President; Dr. Mac F. Cahal, 20 N. Wacker Drive, Chicago 6, Secretary.

American College of Surgeons. Dr. Arthur W. Allen, Boston, President; Dr. Paul B. Magnuson, 40 E. Erie St., Chicago 11, Secretary.

American Congress of Physical Medicine, Washington, D. C., September 7-11, 1948. Dr. H. Worley Kendell, Chicago, President; Dr. Richard Kovacs, 2 E. 88th St., New York 28, Secretary.

American Dermatological Association, Coronado, Calif., April 26-29, 1948. Dr. J. Gardner Hopkins, New York, President; Dr. Harry R. Foerster, 208 E. Wisconsin Ave., Milwaukee, Secretary.

American Gastro-Enterological Association, Atlantic City, April 30-May 1, 1948. Dr. Henry L. Bockus, Philadelphia; Dr. Dwight L. Wilbur, 655 Sutter St., San Francisco, Secretary.

American Gynecological Society. Dr. Edmund A. Schumann, Philadelphia, President; Dr. Howard Taylor, Jr., 842 Park Ave., New York 21, Secretary.

American Hospital Association, Atlantic City, September 20-23, 1948. Mr. Graham L. Davis, Battle Creek, Mich., President; Mr. George P. Bugbee, 18 E. Division St., Chicago, Executive Secretary.

American Laryngological, Rhinological and Otological Society, Atlantic City, April 7-9, 1948. Dr. Lyman G. Richards, Brookline, Mass., President; Dr. C. S. Nash, 277 Alexander St., Rochester 7, N. Y., Secretary.

American Neurological Association, Atlantic City, June 14-16, 1948. Dr. George Wilson, Philadelphia, President; Dr. H. Houston Merritt, Montefiore Hospital, New York 67, Secretary.

American Ophthalmological Society, Hot Springs, Va., May 16-19, 1948. Dr. Henry C. Haden, Houston, President; Dr. W. S. Atkinson, 129 Clinton St., Watertown, N. Y., Secretary.

American Orthopedic Association, Quebec, Canada, June 3-6, 1948. Dr. Robert I. Harris, Toronto, Canada, President; Dr. C. Leslie Mitchell, Henry Ford Hospital, Detroit 2, Secretary.

American Otological Society, Hot Springs, Va., April 12-13, 1948. Dr. B. J. McMahon, St. Louis, President; Dr. Gordon D. Hoople, 713 E. Genesee St., Syracuse 3, N. Y., Secretary.

American Pediatric Society, Quebec, Canada, May 24-26, 1948. Dr. Grover F. Powers, New Haven, Conn., President; Dr. Henry G. Poncher, 1819 W. Polk St., Chicago 12, Secretary.

American Proctologic Society, Chicago, June 18-20, 1948. Dr. George H. Thiele, Kansas City, Mo., President; Dr. Vernon G. Jeurink, 1612 Tremont Pl., Denver 2, Secretary.

American Psychiatric Association, Washington, D. C., May 17-20, 1948. Dr. Winfred Overholser, Washington, D. C., President; Dr. Leo H. Bartemeier, General Motors Bldg., Detroit, Secretary.

American Public Health Association, Boston, November 8-12, 1948. Dr. Martha M. Eliot, Washington, D. C., President; Dr. R. M. Atwater, 1790 Broadway, New York 19, Secretary.

American Roentgen Ray Society, Chicago, September 14-18, 1948. Dr. J. B. Edwards, St. Louis, President; Dr. H. Dabney Kerr, University Hospital, Iowa City, Secretary.

American Society of Anesthesiologists. Dr. Edward B. Tuohy, Rochester, Minn., President; Dr. Curtiss B. Hickcox, 745 Fifth Ave., New York 22, Secretary.

American Society of Clinical Pathologists, Chicago, October 10-16, 1948, Dr. Theodore J. Curphey, Hempstead, N. Y., President; Dr. A. S. Giordano, 531 N. Main St., South Bend, Ind., Secretary.

American Surgical Association. Dr. Elliott C. Cutler, Boston, President; Dr. W. M. Firor, Johns Hopkins Hospital, Baltimore 5, Secretary.

American Urological Association, Boston, May 17-20, 1948. Dr. Herbert H. Howard, Boston, President; Dr. T. D. Moore, 899 Madison Ave., Memphis 3, Tenn., Secretary.

Association of American Physicians, Atlantic City, May 4-5, 1948. Dr. A. H. Gordon, Montreal, President; Dr. H. M. Thomas, Jr., 1201 N. Calvert St., Baltimore 2, Secretary.

Central Neuropsychiatric Association, Kansas City, Fall, 1948. Dr. William C. Menninger, Topeka, Kan., President; Dr. Lee Eaton, Mayo Clinic, Rochester, Minn., Secretary.

International College of Surgeons, U. S. Chapter. Dr. Herbert Acuff, Knoxville, Tenn., President; Dr. Louis J. Gariepy, 16401 Grand River Ave., Detroit 27, Secretary.

National Tuberculosis Association, New York, June 14-18, 1948. Dr. James R. Reuling, Bayside, N. Y., President; Dr. H. Stuart Willis, 1790 Broadway, New York 19, Secretary.

Radiological Society of North America. Dr. L. Henry Garland, San Francisco, President; Dr. D. S. Childs, Medical Arts Bldg., Syracuse 2, N. Y., Secretary.

Southern Medical Association. Dr. A. LeDoux, New Orleans, President; C. P. Loranz, Empire Building, Birmingham, Ala., Secretary-Manager.

Southern Psychiatric Association. Dr. Guy F. Witt, Dallas, President; Dr. Newdigate M. Owensby, 384 Peachtree St. N. E., Atlanta, Ga., Secretary.

Southern Surgical Association, White Sulphur Springs, December 7-9, 1948. Dr. E. P. Lehmann, Charlottesville, Va., President; Dr. Alfred Blalock, Johns Hopkins Hospital, Baltimore 5, Secretary.

Southwest Allergy Forum, Oklahoma City, Okla., April 5-6, 1948. Dr. Herbert J. Rinkel, Kansas City, Mo., President; Dr. Fannie Lou Leney, 1200 N. Walker, Oklahoma City, Okla., Secretary.

Southwest Medical Association, El Paso, October 28-30, 1948. Dr. J. M. Greer, Phoenix, Ariz., President; Dr. Wickliffe R. Curtis, First National Bank Building, El Paso, Secretary.

Southwest Regional Cancer Conference, Fort Worth, October 12, 1948. Secretary, 209 Medical Arts Bldg., Fort Worth.

United States-Mexico Border Public Health Association. Dr. James R. Scott, Santa Fe, N. Mex., President; Dr. M. F. Haralson, 314 U. S. Court House, El Paso, Secretary.

STATE

Texas Association of Medical Anesthetists, Houston, April 26, 1948. Dr. Robert A. Miller, San Antonio, President; Dr. Harvey C. Slocum, 928 Strand, Galveston, Secretary.

Texas Association of Obstetricians and Gynecologists, Houston, October, 1948. Dr. Warren E. Massey, Dallas, President; Dr. George Adam, 4115 Fannin, Houston, Secretary.

Texas Chapter, American College of Chest Physicians, Houston, April 26, 1948. Dr. H. Frank Carman, Dallas, President; Dr. Charles J. Koerth, Kerrville, Secretary.

Texas Club of Internists. Dr. Julian C. Barton, San Antonio, President; Dr. Charles Barrier, Medical Arts Building, Fort Worth, Secretary.

Texas Hospital Association. Mr. C. J. Hollingsworth, Lubbock, President; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secretary.

Texas Neuropsychiatric Association, Dr. A. Hauser, Houston, President; Dr. David Wade, 604 Capital National Bank Bldg., Austin, Secretary.

Texas Orthopedic Society, Houston, April 26, 1948. Dr. Walter Stuck, San Antonio, President; Dr. Ruth Jackson, 3629 Fairmount St., Dallas, Secretary.

Texas Pediatric Society, Dallas, October 15-16, 1948. Dr. C. B. Alexander, San Antonio, President; Dr. John E. Ashby, 3610 Fairmount, Dallas, Secretary.

Texas Public Health Association, San Antonio, February, 1949. Dr. Austin E. Hill, San Antonio, President; Mr. Earle W. Sudderth, Dallas County Health Department, Court House, Dallas, Executive Secretary.

Texas Radiological Society, Fort Worth, January 7-8, 1949. Dr. L. M. Garrett, Corpus Christi, President; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secretary.

Texas Railway and Traumatic Surgical Association, Houston, April 26, 1948. Dr. Linwood H. Denman, Lufkin, President; Dr. Ross Trigg, First National Bank Bldg., Fort Worth, Secretary.

Texas Society for Mental Hygiene, Dallas, March 3-5, 1949. Dr. Ozro T. Woods, Dallas, President; Mrs. Elizabeth F. Gardner, 1617 Watchhill Road, Austin 21, Executive Secretary.

Texas Society of Gastroenterologists and Proctologists, Houston, April 26, 1948. Dr. George Underwood, Dallas, President; Dr. Carl Giesecke, 1602 Nix Professional Bldg., San Antonio, Secretary.

Texas Society of Ophthalmology and Otolaryngology, Fort Worth, 1948. Dr. S. N. Key, Sr., Austin, President; Dr. John L. Matthews, 929 Nix Professional Bldg., San Antonio, Secretary.

Texas Society of Pathologists, Dallas, January 30, 1949. Dr. W. W. Coulter, Sr., Houston, President; Dr. C. T. Ashworth, Southwestern Medical College, Dallas, Secretary.

Texas State Heart Association, Houston, April 26, 1948. Dr. DeWitt Neighbors, Fort Worth, President; Dr. Merritt B. Whitten, 1421 Medical Arts Bldg., Dallas, Secretary.

Texas State Urological Society, Temple. Dr. Michael K. O'Heeron, Houston, President; Dr. E. O. Bradfield, Scott and White Clinic, Temple, Secretary.

Texas Surgical Society, San Antonio, April 5-6, 1948. Dr. G. W. N. Eggers, Galveston, President; Dr. Truman G. Blocker, University of Texas Medical Branch, Galveston, Secretary.

Texas Tuberculosis Association, San Angelo, September 24-25, 1948. F. K. Dougharty, Liberty, President; Miss Pansy Nichols, 700 Brazos, Austin, Executive Secretary.

DISTRICT

Second. Big Spring, District Society. Dr. R. B. G. Cowper, Big Spring, President; Dr. H. A. Briggs, Midland, Secretary.

Third, Panhandle, District Medical Society, Amarillo, April 13-14, 1948. Dr. A. E. Winsett, Amarillo, President; Dr. Kenneth Flamm, Amarillo, Secretary.

Fourth District Society, Ballinger. Dr. J. C. Young, Coleman, President; Dr. Charles F. Bailey, Ballinger, Secretary.

Fifth and Sixth Districts Society. Dr. Kleberg Eckhardt, Corpus Christi, President; Dr. Charles Tennison, Nix Professional Building, San Antonio, Secretary.

Seventh, Austin, District Society. Dr. M. I. Brown, Austin, President; Dr. David Wade, 604 Capital National Bank Bldg., Austin, Secretary.

Eighth, Ninth and Tenth Districts, South Texas, Society. Dr. T. O. Woolley, Orange, President; Dr. James Greenwood, Jr., 518 Medical Arts Bldg., Houston 2, Secretary.

Eleventh District Society, Tyler, October, 1948. Dr. Harvey Bell, Palestine, President; Dr. C. B. Young, 929 S. Confederate, Tyler, Secretary.

Twelfth, Central Texas District Society, Bryan, July 13, 1948. Dr. R. R. White, Temple, President; Dr. H. F. Connally, Jr., Amicable Bldg., Waco, Secretary.

Thirteenth, Northwest, District Society. Dr. Fred Harrell, Olney, President; Dr. S. W. Wilson, Medical Arts Bldg., Fort Worth, Secretary.

Fourteenth, North Texas, District Society, Greenville. Dr. W. I. Southerland, Sherman, President; Dr. John Bagwell, Medical Arts Building, Dallas, Secretary.

Fifteenth, Northeast, District Society, Daingerfield, Fall, 1948. Dr. W. S. Terry, Jefferson, President; Dr. James Harris, Marshall, Secretary.

CLINICS

Dallas Southern Clinical Society, Dallas, March 14-17, 1949. Miss Thelma J. Webb, Medical Arts Bldg., Dallas 1, Executive Secretary.

Wichita County Fall Clinical Conference, Wichita Falls, October 20, 1948. Dr. Charles H. Brown, Wichita Falls, Program Chairman.

NEGRO POSTGRADUATE ASSEMBLY

The twelfth annual Postgraduate Assembly of Negro Physicians in Texas was held at Prairie View College, Prairie View, March 1-4, featuring lectures and clinics on tuberculosis, syphilis, internal medicine, and pediatrics.

Out-of-state lecturers were Drs. W. Roderick Brown, Pittsburgh, Pa.; T. K. Lawless, Chicago; W. A. Younge, St. Louis; and Blanche Bourne, Washington, D. C. Texas physicians on the faculty included Drs. E. G. Faber, Tyler; John Phillips, Houston; Russell J. Blattner, Houston; and Chester Frazier, University of Texas Medical Branch, Galveston. A panel discussion on "The Role of the Physician in School Health Services, a Medium of Health Education," was presented by Dr. B. E. Conner, Austin; Lewis Spears, Austin, health education director, State Department of Education; Dr. C. W. Pemberton, Houston; Dr. G. T. Coleman, Marshall; and Mrs. Ada M. Yerwood, consultant on Negro programs for the Texas Tuberculosis Association. Dr. J. B. Matthews, Port Arthur, president, Lone Star State Medical, Dental, and Pharmaceutical Association, presided.

An award for the physician bringing the most interesting case to any of the eight clinics scheduled over the four-day period was given to Dr. Jesse M. Burnett, Fort Worth.

The Assembly is sponsored by the Texas Tuberculosis Association, Texas State Department of Health, Lone Star State Medical, Dental, and Pharmaceutical Association, Prairie View College, State Medical Association of Texas, and National Tuberculosis Association.

TEXAS CLUB OF INTERNISTS

The Texas Club of Internists met in Abilene, February 20-21, with twenty-six members in attendance. The program was as follows:

Abnormalities of Diaphragm—Dr. Erle D. Sellers, Abilene.
Coarctation of Aorta—Dr. W. L. Powers, Wichita Falls.
Homologous Serum Jaundice—Dr. L. J. Webster, Abilene.
Vertigo—Dr. J. D. Magee, Abilene.
Arthritis—Dr. F. C. Hodges, Abilene.
Case Report of Ventricular Fibrillation with Recovery—Dr. Walter D. Whiting, Wichita Falls.
Fibrocystic Disease of Pancreas—Dr. Donald McDonald, Abilene.
Chronic Ulcerative Colitis—Dr. W. S. Horn, Fort Worth.
Clinical Pathologic Conference—Dr. DeWitt Neighbors, Fort Worth.

Dr. Julian C. Barton, San Antonio, was elected president, and Dr. Charles Barrier, Fort Worth, vice-president.

AMERICAN COLLEGE OF CHEST PHYSICIANS

The Board of Examiners of the American College of Chest Physicians has announced that the next oral and written examinations for fellowship will be held at Chicago, June 17, 1948. Candidates for fellowship should contact the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10.

The annual meeting of the college will be held at the Congress Hotel, Chicago, June 17-20.

TEXAS HOSPITAL ASSOCIATION

The Texas Hospital Association, together with the Texas Association of Hospital Auxiliaries, Texas Association of Nurse Anesthetists, and Texas Chapter, American Association of Medical Record Librarians, held its annual convention in Dallas, March 4-6. Graham L. Davis, Battle Creek, Mich., president of the American Hospital Association, and George Bugbee, Chicago, executive director, were participants in the program, which covered a variety of topics from hospital purchasing and construction to prepayment plans and nursing education. Dr. L. L. D. Tuttle, Houston, delegate from the State Medical Association to the Texas Hospital Association, gave an address on the program of the medical association.

Officers of the Texas Hospital Association for the coming year include C. J. Hollingsworth, Lubbock, president; Julian H. Pace, Waco, president-elect; Pat Morrison, San Antonio, vice-president; and Wil-

liam H. Pigg, Austin, treasurer. Mrs. Jessie L. Compton, Dallas, is president of the Texas Association of Nurse Anesthetists; Mrs. L. L. D. Tuttle, Houston, president of the Texas Association of Hospital Auxiliaries; and Miss Clara Schwabe, Houston, president of the Texas Chapter of American Association of Medical Record Librarians.

STATE BOARD OF MEDICAL EXAMINERS

The State Board of Medical Examiners has selected Dr. H. F. Connally, Waco, as secretary-treasurer and has moved its headquarters from Dallas to Waco, 1305 Amicable Building. Dr. Connally, already a member of the board, was named acting secretary shortly after the death January 1 of Dr. T. J. Crowe, Dallas, who had been secretary for many years.

Dr. Howard O. Smith, Marlin, was appointed February 12 to the Board of Medical Examiners, replacing Dr. N. D. Buie, Marlin, who died February 9. Dr. Smith's term of office will expire April 13, 1953, according to the Austin *American-Statesman*.

The next examination by the Board will be held June 16-18 at the Roosevelt Hotel, Waco.

TEXAS PUBLIC HEALTH ASSOCIATION

The meeting of the Texas Public Health Association in Houston, February 22-25, was the largest annual meeting that organization has had. Registration totaled 575.

Outstanding speakers who appeared on the program, which provided special sections for health officers, engineers, laboratory personnel, nurses, health educators, sanitarians, statisticians, and clerks, included Dr. Ira V. Hiscock, Yale University School of Public Health; Miss Pearl McIver, director of nursing, U. S. Public Health Service; Dr. Albert E. Bailey, National Office of Vital Statistics; Dr. Martin A. Frobisher, professor of bacteriology, Johns Hopkins University; Charles B. Frasher, merit system consultant, American Public Health Association; and Dr. James A. Doull, Office of International Health Relations, U. S. Public Health Service.

Officers of the Association for the coming year are Dr. Austin E. Hill, San Antonio, president; Dr. W. R. Ross, Tyler, president-elect; B. A. Young, Galveston, first vice-president; Miss Belle Blackwell, Houston, second vice-president; and Earle W. Sudderth, Dallas, executive secretary. The next meeting will be held in San Antonio, probably the latter part of February, 1949.

DALLAS SOUTHERN CLINICAL SOCIETY

Three postgraduate courses to be given in 1948 have been announced by the Dallas Southern Clinical Society, which for a number of years has offered such courses on special subjects designed for both specialists and general practitioners. These courses, which are in addition to the annual spring clinical conference, are given in cooperation with the organized specialty groups of Dallas, the staffs of the various hospitals and clinics, and the faculty of Southwestern Medical College. The courses are as follows:

Psychiatry, May 26-28. Dr. Edward G. Billings, associate professor of psychiatry, University of Colorado, Denver, honor guest; Department of Neuropsychiatry, Southwestern Medical College cooperating.

Diagnostic and Therapeutic Roentgenology, June 3-5. Dr. Wendell G. Scott, associate professor of radiology, Washington University School of Medicine, St. Louis, honor guest; Dallas-Fort Worth Radiological Club cooperating.

Metabolic Disorders, September 20-23. Dr. Elliott P. Joslin, medical director, George F. Baker Clinic, and New England Deaconess Hospital, Boston, honor guest; Dallas Academy of Internal Medicine cooperating.

Registration for each course will be limited, and application should be made in advance. The fee of $25 for each course is payable in advance. Applications should be addressed to the society, 433 Medical Arts Building, Dallas 1.

Dr. H. Walton Cochran, clinical associate professor of surgery at Southwestern Medical College, has been elected president of the Dallas Southern Clinical Society. Dr. Frank A. Selecman is vice-president; Dr. Lawrence B. Sheldon, secretary; and Dr. Andrew B. Small, treasurer. Drs. A. Truett Morris, Barton E. Park, Edward S. Ross, and Harry M. Spence are representatives-at-large on the executive committee. Dr. Elliott Mendenhall, retiring president, will be chairman of the executive committee.

The society has set March 14-17 as the dates for the 1949 spring conference.

ARMY MEDICAL DEPARTMENT POSITIONS

Opportunities for advanced training and experience in the various medical and surgical specialties exist in a number of overseas Army hospitals registered with the American Medical Association, and such experience may be acceptable by specialty boards as part of the period usually required to be spent in limited practice.

Most of the positions are in Germany and Austria, are to be filled for from one to three years, and provide for reserve commissions in the Army Medical Corps. Families of married applicants will be allowed to accompany the physicians, and suitable quarters are available.

Inquiries should be addressed to the Surgeon General, U. S. Army, Washington 25, D. C., and should include details as to age, marital status, medical training, prior military service, and so forth.

TUBERCULOSIS FELLOWSHIPS

Establishment of teaching and research fellowships in the field of tuberculosis by the National Tuberculosis Association has been announced by Dr. Esmond R. Long, director of the NTA's Division of Research.

Annual stipends for the fellowships will range from $2,400 to $3,200. Provision will also be made for laboratory fees and incidental expenses of like character. The fellowships will be limited to graduates of American schools for teaching and investigation in the United States. Preference will be given to applicants with a doctor of philosophy or doctor of medicine degree. Applications will be considered in the fields of pathology and bacteriology, clinical medicine, epidemiology, and social and statistical research.

Further information may be obtained from Dr. James E. Perkins, managing director, National Tuberculosis Association, 1790 Broadway, New York 19.

ALLERGISTS TO SUPPLY SPEAKERS

The American College of Allergists, which was established five years ago and has a membership of 750 clinicians and researchers in the field of allergy, has announced a new service. In addition to the publication of the *Annals of Allergy* and the sponsorship of instructional courses at various medical schools, the college has now established a speakers bureau which will furnish authoritative lecturers on topics related to allergy. Complete records of topics, the time necessary to present the lectures or demonstrations, and other detailed information such as scientific exhibits which are available are kept by the secretary-treasurer, Dr. Fred W. Wittich. Inquiries concerning the service should be addressed to Dr. Wittich at 423 LaSalle Medical Building, Minneapolis 2, Minn.

LIPSTICK DERMATITIS

The dye used to make lipsticks "indelible" is a common cause for lipstick dermatitis, three Chicago dermatologists report in the October, 1947, *Archives of Dermatology and Syphilology*. The three writers, Samuel J. Zakon, M. D., Aaron L. Goldberg, M. D., and Julius B. Kahn, B. S., cite 32 cases of lipstick dermatitis caused by sensitivity to indelible dye which were seen in one year of private practice. Among the symptoms were cracked, swollen, dry, or burning lips. In some cases the irritation had spread to the eyes, the rest of the face, or the body. The writers explain that the United States government certifies to the chemical standards used in lipstick dyes and pigments, but makes no attempt to consider their allergenic properties. Sensitivity to the pigments is rare, but "sensitivity to the dye is more frequent than is commonly realized."

LIVING CELLS STUDIED

Progressive stages in the actual killing of a living cell by a virus have been observed by Dr. Alvin W. Hofer, of the New York State Agricultural Experimental Station, and Dr. Oscar W. Richards, of the American Optical Company's Scientific Instrument Division. The death struggle of bacterial organisms attacked by bacteriophage was seen through a phase microscope, a powerful new instrument with which it is possible to study and photograph transparent living cells without preliminary staining.

Most of the information gained in the past with the light and electron microscopes was limited to the study of dead rather than living material. Under the phase microscope, however, scientists may observe living cells in their normal, undistorted existence. Accurate measurement of their dimensions is also made possible.

The phase microscope, by detecting the differences in the behavior of light passing through transparent materials which differ from their background in either light-bending power or actual thickness, makes them sufficiently visible so that growth and development may be followed, a result hitherto impossible. The instrument was developed by the American Optical Company.

CANCER FUND AVAILABLE

For the first time the National Cancer Institute is prepared to give aid to medical schools for further development of courses in cancer for medical students. Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, indicates that the Congress this year authorized grants-in-aid for this purpose; grants previously have been to support research in cancer. The new program is designed to place greater emphasis upon the integration of cancer instruction in the total undergraduate curriculum and is a result of a conference held at the National Cancer Institute by a committee of medical educators. Grants will range from $10,000 to $25,000 per year.

VENEREAL DISEASE IN ARMY DECREASES

A phenomenal drop in the incidence of venereal disease among American soldiers occurred during the past year, according to the Department of the Army. For the Army as a whole, the decrease amounts to 40 per cent since January, 1947; among soldiers stationed in the United States, to more than 50 per cent.

Chief factor responsible for this rapid decline in venereal infection is believed to be a new approach on the part of the Army to the problems of curbing the disease. Studies made in 1946, when the venereal disease rate reached its highest peak during the war period, resulted in a revision of the control program so as to appeal to the moral sense of the soldier. Now the moral reasons for good conduct are stressed through group and individual education and conferences, including the use of new training motion picture films, and an attempt is made to provide activity programs and planned entertainments to maintain the wholesome interest of the soldier and help keep him off the streets during his off duty periods.

SCHERING AWARD ANNOUNCED

"The Role of Hormones in the Maintenance of Pregnancy" is the subject for the Schering Award for 1948. For the three best manuscripts submitted by undergraduate students of American and Canadian medical schools, cash prizes of $500, $300, and $200 will be given by the Schering Corporation of Bloomfield, N. J.

DEATH RATES ARE LOWER

Figures summarizing mortality rates, recently released by the National Office of Vital Statistics, show that the national crude death rate decreased from 10.6 per 1,000 population in 1945 to 10.0 in 1946. In Texas the rate decreased from 8.8 per 1,000 population in 1945 to 8.6 in 1946. The decrease in the crude death rates has been credited by the statisticians primarily to the large scale demobilization of the armed forces during 1946 which increased the population present in the country but which contributed relatively little to the number of deaths, since most of the military personnel being returned to the United States were young adults who normally have a low death rate.

DISINFECTANT MAY HELP CONTROL COLDS

Using a disinfectant on handkerchiefs might be one step toward preventing the "common cold" from spreading, according to the London correspondent of *The Journal of the American Medical Association*, writing in the February 28 issue.

Reporting on a lecture by Dr. C. H. Andrewes, F. R. S., of the National Institute for Medical Research, on recent research on the common cold, *The Journal's* correspondent said that "some recent evidence suggested that more unpleasant germs were spread from the nose than from the mouth and throat, which led to the question whether bacteria and viruses accidentally shaken from handkerchiefs might not be of great importance. Tests showed that many bacteria might be shaken out and remain in the air. Handkerchiefs from the later stages of colds were found to be particularly effective as germ distributors. Work now in progress suggested that impregnation of handkerchiefs with a disinfectant might make them much less dangerous in this respect."

REMOVAL OF FOREIGN BODIES FROM ESOPHAGUS

A new technique for removing solid bodies lodged in the esophagus has been developed by two Indianapolis physicians, W. D. Gatch and W. F. Molt.

Writing in the March issue of *Archives of Surgery*, the doctors report the case of a man 46 years of age who swallowed his upper denture. They made a small opening in the stomach, passed an instrument upward into the esophagus, grasped the object, and removed it through the stomach opening.

This method of removing solid bodies lodged in the lower part of the gullet, they explained, avoids the dangerous and often impossible method of extraction through the mouth with forceps. This accident is especially dangerous when the object swallowed has sharp points.

LIBRARY NOTES

PACKAGE SERVICE

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth 3, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Packages are allowed to remain in the hands of the borrower for 14 days.

ACCESSIONS

The following additions were made to the Library in March:

Reprints received, 659.

Journals received, 233.

New York, D. Appleton-Century—Burstein and Bloom: Illustrative Electrocardiography, 3rd edition; Cole and Elman: Textbook of General Surgery, 5th edition.

Philadelphia, W. B. Saunders—Beckman: Treatment in General Practice, 6th edition.

Baltimore, Williams and Wilkins—Breed, Murray and Hitchins: Bergey's Manual of Determinative Bacteriology, 6th edition; Luisada: Heart, A Physiological and Clinical Study of Cardio-Vascular Diseases.

New York, F. W. Dodge Corporation—Butler and Erdman: Hospital Planning.

Washington, D. C., Mental Therapy Publications —London: Libido and Delusion.

St. Louis, C. V. Mosby—Zoethout: Introduction to Human Physiology; Laboratory Experiments in Physiology, 4th edition; Muncie: Psychobiology and Psychiatry, 2nd edition; Carling and others, editors: British Surgical Practice, Vol. 2.

Springfield, Charles C. Thomas—Bauer: Private Enterprise or Government in Medicine.

SUMMARY OF SERVICE

Local users, 40.	Borrowers by mail, 33.
Items consulted, 181.	Packages mailed, 38.
Items taken out, 269.	Items mailed, 376.

Total number of articles consulted and loaned, 816.

MOTION PICTURE FILM LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in color, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Film Library, State Medical Association of Texas, 1404 West El Paso Street, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Film Library during March:

Accent on Use (National Foundation for Infantile Paralysis)—University of Houston, Houston.

Accident Services (British Information Services) —North Texas Agricultural College, Arlington.

Adolescence, Introduction to (Mead Johnson)— Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society, Midland.

Anemia, Erythroblastic (Mead Johnson)—Dr. G. Y. Swickard, Orange.

Anemias, The (Lederle Laboratories)—Wichita General Hospital School of Nursing, Wichita Falls.

Anesthesia, Regional (Winthrop)—Dr. Ted Lace, Fort Worth; Keidel Memorial Hospital and Clinic, Fredericksburg; and Science Department, Texas Wesleyan College, Fort Worth.

Another to Conquer (Texas Tuberculosis Association)—Dr. J. E. Johnson, Lamesa.

Antitoxins, Globulin Modified (Lederle Laboratories)—Texas Wesleyan College, Fort Worth.

Appendicitis in Childhood (Mead Johnson)—Dr. W. C. Barksdale, Borger, and Dr. G. Y. Swickard, Orange.

Appraisal of the Newborn (Mead Johnson)—Ragland Clinic-Hospital, Gilmer.

As Others See Us (American Hospital Association)—St. Joseph's Hospital, Fort Worth, and University of Houston, Houston.

Behind the Shadows (Texas Tuberculosis Association)—Dr. P. M. Nesbit, Arlington.

Blood Transfusion, Technique (Mead Johnson)— Dr. P. M. Nesbit, Arlington.

Blood Transfusion (British Information Services) —Western Clinic-Hospital, Midland.

Breech Extraction (Mead Johnson)—Brazos-Robertson Counties Medical Society, Bryan.

Bronchial Asthma (E. Fougera)—Dr. P. M. Nesbit, Arlington.

Caesarean Section (Mead Johnson) — Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society, El Campo, and Ragland Clinic-Hospital, Gilmer.

Chest Diseases, Surgery (British Information Service)—North Texas Agricultural College, Arlington, and Clay-Montague-Wise Counties Medical Society, Bowie.

Cholecystectomy (Mead Johnson) — Clay-Montague-Wise Counties Medical Society, Bowie.

D. D. T., The Story of (British Information Service)—Western Clinic-Hospital, Midland, and Dr. J. E. Johnson, Lamesa.

Diphtheria and Croup (Lederle Laboratories)— City Health Department, Fort Worth.

Eyes for Tomorrow (Hurst Clinic)—Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society, Midland.

Eyes, Your Children's (British Information Services)—P. T. A., Arlington, and University of Houston, Houston.

Extracellular Fluid, Introduction to (Mead Johnson)—Shreveport Charity Hospital, Shreveport, La.

Folvite in Anemias (Lederle Laboratories)—Taylor Clinic, Lufkin, and Texas Wesleyan College, Fort Worth.

From Moo to You (Borden Company)—Trinity Gospel Mission, Fort Worth.

Gastrectomy, Safer (Billy Burke Laboratories)— Dr. Ted Lace, Fort Worth; Dr. P. M. Nesbit, Arlington; and North Texas Agricultural College, Arlington.

Gastroscopy, Role of (Harrower)—North Texas Agricultural College, Arlington.

Goiter Surgery (Mead Johnson)—Dr. P. M. Nesbit, Arlington, and Dr. Ted Lace, Fort Worth.

Golden Glory (Standard Brands)—South Side School, Arlington, and Fort Worth Public Health Nurses, Fort Worth.

Goodbye Mr. Germ (Texas Tuberculosis Association)—Arlington Public Schools, Arlington, and Tarrant County Health Department, Fort Worth.

Hematology, Animated (Armour Laboratories)— Wichita General Hospital School of Nursing, Wichita Falls; Keidel Memorial Hospital, Fredericksburg; Veterans Hospital, Dallas; and Dr. G. Y. Swickard, Orange.

Hidden Hunger (Swift & Company)—P. T. A., Arlington.

Human Fertility (Ortho-Products)—Brazos-Robertson Counties Medical Society, Bryan, and Dr. P. M. Nesbit, Arlington.

Hypodermic Syringes and Needles (Becton, Dickinson & Company)—University of Houston, Houston.

Immunization against Infectious Diseases (Lederle

Laboratories) — Texas Wesleyan College, Fort Worth.

Injuries, Athletic Type (Becton, Dickinson & Company)—St. Joseph's Hospital, Fort Worth.

Magic Bullets (U. S. Public Health Service)—Western Clinic-Hospital, Midland.

Malaria (British Information Services)—Taylor Clinic, Lufkin.

Modern Nutrition (E. R. Squibb & Son)—Dr. P. M. Nesbit, Arlington.

Multiple Pregnancy (Mead Johnson)—Hill County Medical Society, Hillsboro.

Nasal Sinusitis (E. Fougera)—Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society, El Campo.

Normal Delivery (Mead Johnson)—Vernon Clinic-Hospital, Vernon.

On the Firing Line (Texas Tuberculosis Association)—Texas State Tuberculosis Sanatorium School of Nursing, Sanatorium.

Oxygen, Administration (Mead Johnson)—Texas State Tuberculosis Sanatorium School of Nursing, Sanatorium.

Oxygen Therapy in Heart Disease (Linde Air Products)—Wichita General Hospital School of Nursing, Wichita Falls, and Dr. P. M. Nesbit, Arlington.

Poliomyelitis, Sister Kenny Method of Treatment (Dr. Herbert Hipps)—City Health Department, Fort Worth.

Premature Infant, The Care of (Mead Johnson) —Hill County Medical Society, Hillsboro.

Preventive Medical Program for Children (Mead Johnson)—Ragland Clinic-Hospital, Gilmer.

Psychiatry in Action (British Information Services)—Texas Wesleyan College, Fort Worth, and Taylor Clinic, Lufkin.

Resuscitation of the Newborn (Mead Johnson)—Hill County Medical Society, Hillsboro.

Roentgen Pelvimetry (Mead Johnson)—Brooks-Duval-Jim Wells Counties Medical Society, Alice, and Hendrick Memorial Hospital, Abilene.

Serum, Human, Preparation of (Mead Johnson) —Dr. P. M. Nesbit, Arlington.

Splenectomy (Davis & Geck)—Dr. Ted Lace, Fort Worth.

Spontaneous Delivery (Mead Johnson)—Dr. P. M. Nesbit, Arlington.

Stitch in Time (American Medical Association)—Western Clinic-Hospital, Midland; P. T. A., Euliss; and Fairview P. T. A., Granbury.

Sulfonamide Therapy (Lederle Laboratories)—North Texas Agricultural College, Arlington, and Texas Wesleyan College, Fort Worth.

Tuberculosis, Role of the Public Health Nurse (Texas Tuberculosis Association)—University of Houston, Houston.

Tuberculosis, This Is (Texas Tuberculosis Association)—P. T. A., Grapevine; State Tuberculosis Sanatorium School of Nursing, Sanatorium; and P. T. A., Kennedale.

Time Is Life (American Cancer Society)—Dr. C. M. Phillips, Levelland.

Traitor Within (American Cancer Society)—Dr. C. M. Phillips, Levelland.

Trichomonas Vaginalis and Leukorrhea (Dr. Karl J. Karnaky)—Dr. P. M. Nesbit, Arlington.

Urinary Antisepsis (Mead Johnson)—St. Joseph's Hospital, Fort Worth.

Varicose Veins and Their Complications (Becton, Dickinson & Company)—Keidel Memorial Hospital-Clinic, Fredericksburg; Dr. Ted Lace, Fort Worth; Dr. P. M. Nesbit, Arlington; and St. Joseph's Hospital, Fort Worth.

Vitamins, and Some Deficiency Diseases (Lederle Laboratories) — Texas Wesleyan College, Fort Worth.

You Are the Switchman (American Cancer Society)—Dr. C. M. Phillips, Levelland.

When Bobby Goes to School (Mead Johnson)—P. T. A., Arlington.

NEW MOTION PICTURES FOR THE FILM LIBRARY

The Motion Picture Film Library of the State Medical Association announces the acquisition of the following films, which will be available for loan after May 10:

Varicose Veins, Treatment. 16 mm., silent, color, running time, 30 minutes. (Available through the courtesy of G. D. Searle & Co., Chicago.) This film is a presentation of the types and treatment of varicosities of the lower extremity. The picture opens with a discussion of the venous anatomy of the leg, and demonstrates by animation the various types of varicosities. The treatment of each type is given, and the use of combined ligation and injection pointed out according to the indications in each type.

The technique of injection is demonstrated on a patient following a demonstration of the tests to determine adequacy of collateral circulation. Types of surgical ligation are shown.

Vaginitis, Trichomonal and Monilial: Pathology, Diagnosis and Treatment. 16 mm., sound, color, running time, 40 minutes. (Available through the courtesy of G. D. Searle & Co., Chicago.) A presentation of the problem of diagnosis and restorative treatment of trichomonal and monilial vaginitis as seen in the physician's office. The technique of identification of the causative organism is presented, as is a thorough discussion of the presenting symptoms.

The film opens with a history of trichomonas vaginalis vaginitis and continues with the essential association between vaginal disease and disturbed vaginal physiology. The relationship between pH, the vaginal flora, the vaginal mucosa and its glycogen content is illustrated, together with the changing factors in vaginal physiology through the lifetime of the human being. The technique of treatment is thoroughly demonstrated and the necessity for persistence in such treatment is accented. Treatment objectives which are associated with the return of pathologic vaginal physiology to the normal are pointed out. Reviews of the literature concerning the types of treatment and the value of each is presented.

Primary Dysmenorrhea. 16 mm., silent, color, running time, 45 minutes. (Available through the courtesy of G. D. Searle & Co., Chicago.) This film is a presentation of the problems associated with the diagnosis and treatment of primary dysmenorrhea. Included are discussions of the value of ten different and commonly used drugs, with laboratory and clinical studies of their efficacy.

The subject is opened with animations showing the endocrine relationships between the anterior pituitary gland and its action on the hormone producing parts of the ovary, the graafian follicle, and the corpus luteum. Similarly shown is the action of the ovarian hormones in the production and control of cyclical menstruation.

The study of drugs includes laboratory demonstration of their action on isolated uterine strips, and also on human subjects. These latter studies are conducted by means of an intrauterine balloon which transmits the influence of rhythmical uterine contractions, evidence of hypertonicity, and the result of medication to kymograph tracings. The intrauterine balloon technique is Bicker's modification of the technique developed by Wilson and Kurzrok.

BOOK REVIEWS

[1]**Practical Office Gynecology.** By Karl John Karnaky, M. D., Assistant Professor of Clinical Gynecology, Baylor University College of Medicine. Cloth, 261 pages. Price, $7.50. Springfield, Ill., Charles C. Thomas, Publisher, 1947.

This book, printed on excellent paper with good type, has a large number of illustrations. A high percentage of the drawings and photographs are in color. The text is easy to read, unburdened with complicated terms. The sentences are short and to the point. Things are clear in the mind of the author and for this reason they are clearly brought out and are understandable.

With so many textbooks in every field of medicine a new book is only as valuable as it shows the personal opinion of the author. This is truly the case with this book, the author of which is a rather independent thinker and a hard worker who tries to prove his ideas on an amazingly large number of charity and private patients. His frequent deviations from the generally accepted routine in the treatment of gynecologic ailments make this book more a summary of Karnaky's office gynecology than a resumé of office gynecology of the profession at large. It represents basically, in book form, the author's numerous studies and publications on such subjects as leukorrhea, Trichomonas vaginalis, vaginal pH, stilbestrol, conization of the cervix, and menstrual disorders. In this connection certain recommendations may be objected to by many readers: the use of intrauterine stem pessaries for dysmenorrhea, infantilism, and hyperflexion, the high dosage and unlimited use of stilbestrol for almost any condition, postpartum hemorrhage for instance, and the use of electrosurgery on the cervix of pregnant women. The author's opinion that corpus luteum hormone is not needed as a therapeutic agent will not be shared by many. Honest observers, however, will agree that the various preparations of anterior pituitary hormones have been disappointing so far. They also will agree that many gynecologic conditions should be treated conservatively and not surgically.

There is a valuable and excellent chapter on some psychologic aspects of gynecology written by Dr. Louis Spivak of Houston.

This is a colorful book by a colorful author. It should be read by all those who want to familiarize themselves with his ideas and his work.

[2]**Diseases of the Chest, Emphasizing X-Ray Diagnosis.** By Eli H. Rubin, M. D., F. A. C. P., F. C. C. P., Attending Physician, Division of Pulmonary Diseases, Montefiore Hospital and Country Sanatorium, New York, including The Principles of Surgical Treatment, by Morris Rubin, B. A., M. D., Assistant Visiting Surgeon, Triboro Hospital and Morrisania City Hospital, New York. Cloth, 685 pages. 355 illustrations, with 24 plates in color. Price, $12. Philadelphia and London, W. B. Saunders Company, 1947.

The author sets forth in his introduction the reason for writing the book—to provide a textbook for beginners in diseases of the chest. This makes more understandable the fact that the subject matter is not very profound and would not have much appeal for physicians who are well seasoned in this field. It is more suitable for general practitioners and beginners.

I believe that the discussion of roentgen-ray films has been over emphasized in the beginning of the text. It will have a tendency to make the reader feel that it is sufficient to get a roentgenogram of the chest at once and let that end the study of the patient. There is too much of that type of practice already.

The author has given an excellent discussion of the anatomy and physiology of the respiratory system. He has dealt in an interesting and practical way with the pulmonary neoplasms and cysts of the respiratory system, including the diaphragm and pleura. I like his idea of discussing almost every conceivable abnormality of the lungs. I am also glad he included a chapter on the effect of cardiovascular diseases on the lungs and the effect of lung diseases on the cardiovascular system.

The text contains numerous roentgenograms and illustrations which are extremely helpful, and a large number of case histories which add interest and clarity to the monograph.

I recommend the book to beginners in the field of chest diseases and to general practitioners.

[3]**Headache.** By I. G. Moench, M. D., Assistant Clinical Professor of Medicine, University of Utah School of Medicine; Internist, Salt Lake Clinic, Salt Lake City, Utah. Cloth, 207 pages. Price, $3.50. Chicago, The Year Book Publishers, Inc., 1947.

This book is well written and covers a lot of territory. The pathology, anatomy, and physiology of headache is interesting, as are the discussions of headache from eye, ear, nose, and throat. Systemic disorders, histamine headache, and migraine are all well covered. The author calls attention to the desirability of investigation of blood sugar and basal metabolism in accounting for certain headaches.

The book is well worth reading and studying. The reader is able to appreciate that headache is still a bothersome problem, and that all headaches are not capable of being diagnosed and treated successfully.

[4]**Handbook of Communicable Diseases.** By Franklin H. Top, M. D., and collaborators. Cloth, 992 pages. Illustrated with 95 figures and 13 colored plates. Second edition. Price, $8.50. St. Louis, The C. V. Mosby Company, 1947.

The author and his associates have rendered a great service to the medical profession in bringing up to date the ever increasing volume of data on communicable diseases. There are several features which are outstanding: the concise presentation of the material, the uniform disposition of the text despite the heterogeneous authorship, and the successful use of abundant and mostly original illustrations, including excellent colored plates.

Section II, dealing with the systematic presentation of groups of specific diseases according to their portal of entry, is preceded by a general review of the basic knowledge on infection and immunity, epidemiology, control, active and passive immunization, serotherapy, and, finally, by the technical management of the sick. This is accompanied in the case of each disease by methods of prevention, thus supplementing the medical problems by their public health aspect.

Fourteen chapters have been added in the second edition. However, plague and cholera are not included. Since plague is not only a potential danger but actually occurs sporadically in this country, its incorporation in the handbook seems desirable. The recent outbreak of cholera in Egypt and the assistance of the United States in combatting the epidemic would justify a place for cholera in the next edition. These omissions do not diminish the value of the handbook, which is highly recommended to the clinician, the student of medicine, and to public health officers.

[1]Reviewed by E. O. Strassmann, M. D., Houston.
[2]Reviewed by H. Frank Carman, M. D., Dallas.
[3]Reviewed by Clinton E. Adams, M. D., F. A. C. S., Abilene.
[4]Reviewed by Ludwik Anigstein, Department of Preventive Medicine and Public Health, University of Texas Medical Branch, Galveston.

[5]**A Textbook of Clinical Neurology.** With an Introduction to the History of Neurology. By Israel S. Wechsler, M. D., Clinical Professor of Neurology, Columbia University, New York; Neurologist, The Mount Sinai Hospital, New York. Cloth, 829 pages. Sixth edition, illustrated. Price, $8.50. Philadelphia and London, W. B. Saunders Company, 1947.

In reviewing a textbook like Wechsler's, which has been a standard for many years, little can be said that has not already been indicated in reports on previous editions.

The book represents an adequate presentation of clinical neurology. It is practical and comprehensive and the personal impressions and opinions of the author make interesting reading. The broad viewpoint and the unpedantic manner in which he treats the subject may appeal to all those who appreciate that there are voids in our knowledge which this book tries to clarify.

The arrangement of the sixth edition is about the same as that of the previous edition. There is a section on method of examination followed by three sections devoted to all the neurologic phases of the spinal cord, the peripheral nerves, and the brain, a good discussion of the neuroses, and a review of the history of neurology.

Entirely new is an addition to the first section discussing psychologic diagnostic testing and techniques. This is far from detailed and only points out some of the highlights of the various tests and their correlation with the neurologic examination. Also there have been some additions to and changes in the illustrations and some minor revisions.

[6]**Diseases of the Nose, Throat and Ear.** By William L. Ballenger, M. D., F. A. C. S.; Howard C. Ballenger, M. D., F. A. C. S.; and John J. Ballenger, M. D. Cloth, 993 pages. Ninth edition, thoroughly revised. 597 illustrations and 16 plates. Price, $12.50. Philadelphia, Lea and Febiger, 1947.

This is an excellent textbook for both the specialist and the general practitioner who wants to know a little more about special procedures. The title should also include the larynx, bronchi, and esophagus, for they are discussed. Many of the theoretical considerations have been omitted, making the book a practical and interesting treatise. Because of the frequent clearly illustrated diagrams and photographs of lesions and procedures, this book will be extremely useful.

[5]Reviewed by Harry Leaffer, M. D., Fort Worth.
[6]Reviewed by J. W. Eschenbrenner, M. D., Fort Worth.

NEWS

Contributions to this department will be appreciated. News should be of general medical interest, such as public health activities, new hospitals, personal items of more than local value, etc. News for a particular number of the JOURNAL should be in the hands of the Editor not later than the fifteenth of the preceding month.

National and International Meetings which have been announced include the following:

International Congresses on Tropical Medicine and Malaria, Washington, May 10-18. The United States government through the Department of State, with the cooperation of various federal agencies and scientific societies, including the American Medical Association, is sponsoring a joint congress on tropical medicine and malaria to which official representatives from more than sixty governments have been invited. Other persons and institutions are invited to participate and may secure additional information from the Executive Secretary, Fourth International Congresses on Tropical Medicine and Malaria, Division of International Conferences, Department of State, Washington 25, D. C.

American Physiotherapy Association, Chicago, May 23-28. The annual conference will include discussions of physical medicine as related to poliomyelitis, peripheral vascular disease, nerve and tendon injuries, and other scientific presentations, as well as tours of Chicago physical therapy departments, business sessions, exhibits, and luncheons.

National Gastroenterological Association, New York, June 7-10. Symposia on gastroduodenal ulcer, ulcerative colitis, jaundice and metabolism, and nutrition and allergy, and a panel discussion on diabetic, tubercular, psychosomatic, and cardiac manifestations in gastrointestinal diseases will be featured, followed by a day of clinical presentations at cooperating hospitals. Details are available from the Secretary, 1819 Broadway, New York 23.

American Society for the Study of Sterility, Chicago, June 21-22. A special series of panel discussions on male infertility, with papers on female and miscellaneous infertility aspects will make up the program. Dr. John O. Haman, Secretary, 490 Post Street, San Francisco 2, can provide additional information.

International Poliomyelitis Conference, New York, July 12-17. The National Foundation for Infantile Paralysis is sponsoring the first international conference on poliomyelitis, to which more than sixty foreign governments are being invited to send official delegates. Scientific and technical papers on research and treatment of poliomyelitis will be presented by authorities from this country and abroad, and panel discussions on various subjects will be held. A scientific exhibit, demonstrations of muscle testing and treatment procedures, and a film program will also be part of the conference. Seventeen scientific societies and six federal agencies are cooperating in the sponsorship of the conference. Inquiries may be addressed to Mr. Stanley E. Henwood, Executive Secretary, Room 571, Waldorf-Astoria Hotel, New York 22.

International Society of Hematology, Buffalo, N. Y., August 23-26. The bi-annual meeting will devote time to general subjects including radioactive and stable isotopes in hematology, problems and diseases related to the red cells and to the white cells, immuno-hematology, Rh-Hr (CDE-cde) antigens and antibodies, hemolytic anemias, coagulation problems, and hemorrhagic diseases. A business meeting and scientific exhibits will be included. All sessions and exhibits will be open to physicians and other scientists interested in hematology, including biochemists, biophysicists, geneticists, and immunologists. Those interested in attending may communicate with Dr. Sol Haberman, Secretary, Baylor Hospital, Dallas.

American Association of Blood Banks, Buffalo, N. Y., August 26-28. The annual meeting of this association, organized in Dallas, November 19, 1947, will be held immediately following the meeting of the International Society of Hematology. The association was established for the exchange of ideas and materials relating to blood banking, for cooperation in times of disaster, as a clearing house on questions relating to the training of personnel, for the encouragement of high standards of service, and to encourage the extension of similar services throughout the United States and its territories. Information may be secured from Miss Marjorie Saunders, LL.B., Secretary, 3301 Junius Street, Dallas.

International Congress on Obstetrics and Gynecology, New York, May 14-19, 1950. Plans are being made for an international congress to be held in conjunction with the American Congress on Ob-

stetrics and Gynecology in 1950. Further details will be announced by Dr. Fred L. Adair, General Chairman, 24 West Ohio Street, Chicago 10.

The Dallas Health Museum will have on display May 7-23 a collection of twenty-three paintings by American artists acquired by the Upjohn Company to illustrate a series of health messages appearing in national magazines under the title "Your Doctor Speaks." These paintings, which are on a tour arranged by the Midtown Galleries of New York, bring a message of new developments in medicine from the brushes of important contemporary artists.

Nursing Institutes in two specialties were planned for Texas during March and April. An orthopedic nursing institute sponsored by the Texas State Department of Health for hospital and public health nurses will be held in Dallas, April 26-30. An interhospital committee has been formed in Dallas to study the problems of adequate nursing care to the orthopedic patient and to make recommendations for their solution, and this committee is assisting with arrangements for the institute.

The first institute on cancer for public health nurses was held in Houston, March 15-19, under the sponsorship of the Texas Cancer Coordinating Council. The program was participated in by members of the staff of the M. D. Anderson Hospital for Cancer Research and the American Cancer Society.

The Children's Medical Center of Dallas has installed a new sixteen-member board of directors drawn from the boards of four children's institutions, reports the Dallas *Times-Herald*. The Children's Hospital of Texas, Bradford Memorial Hospital, Hope Cottage, and Richmond Freeman Memorial Clinic are represented on the cooperative board, which will help to coordinate the activities of the various units. Only nonmedical activities will come under the jurisdiction of the board, a cooperative medical staff having already been set up.

The University of Texas Medical Branch will soon have a new fifty-six bed surgical unit at John Sealy Hospital with special facilities for plastic and neurosurgery.

An additional $2,500 has been given by Mrs. H. H. Weinert, Seguin, to the H. H. Weinert Memorial Endowment Fund for the support of cardiovascular research.

A bronze plaque in memory of Dr. Greensville Dowell, who in 1866 in Galveston established the first medical school in Texas and published the first medical journal in Texas, will be erected at the University of Texas School of Medicine as a result of contributions made through the Alumni Association.

A postgraduate conference in pediatrics, sponsored by the Department of Pediatrics of the University of Texas Medical Branch, the Texas Child Health Program, and the Maternal and Child Health Division of the Texas State Board of Health, will be held in Galveston April 12-17. Among the topics to be discussed are infantile diarrhea, heart disease, poliomyelitis, physiology of the newborn, speech and speech correction, infant feeding, and infectious diseases.

Dedication of a Rehabilitation Clinic in connection with John Sealy Hospital was a feature of the conference on physical medicine held recently at the Medical Branch. Establishment of the clinic was made possible by funds provided by the Monsanto Chemical Company in appreciation of the services of John Sealy Hospital in connection with the Texas City explosions last spring.

Approximately ninety physicians attended the postgraduate course in obstetrics held the first part of March at the University of Texas Medical Branch. Out-of-state lecturers included Drs. Conrad G. Collins, New Orleans; Virgil C. Counseller, Rochester, Minn.; John W. Harris, Madison, Wis.; Thaddeus L. Montgomery, Philadelphia; and Robert A. Ross, Durham, N. C., according to the Galveston *Tribune*.

Recent visitors to the University of Texas Medical Branch include Dr. Charles H. Best, professor of physiology at the University of Toronto; Dr. Arthur Purdy Stout, chairman of the Department of Surgical Pathology, Columbia College of Physicians and Surgeons, New York; K. J. Heinicke, research and engineering division, Bausch and Lomb Optical Company, Rochester, N. Y.; Dr. Ernest W. Brown, member of the American Medical Association Council of Industrial Hygiene, New York; Dr. Herbert J. Rinkel, Kansas City allergist; and Dr. Julius H. Comroe, University of Pennsylvania, Philadelphia.

Dr. C. T. Stone, professor of internal medicine at the Medical Branch, will preside at one of the meetings of the American College of Physicians in San Francisco, April 19-23.

Baylor University College of Medicine has announced plans for the dedication of the Roy and Lillie Cullen Building in Houston, April 22-24, thus marking the official opening of the building which has been in use since September. Kenneth C. Royall, secretary of the Army, will be the principal speaker at the formal dedication the morning of April 24, using as his subject, "Medical Education and National Defense." William R. White, D. D., Waco, president of Baylor University, will dedicate the building.

The two days preceding the formal dedication will be devoted to a series of addresses on health and medicine. On April 22 Chauncey D. Leake, Ph. D., vice president and dean of the University of Texas Medical Branch, Galveston; Dr. Alton Ochsner, professor of surgery, Tulane University, New Orleans; Col. A. A. De Coursey, chief of pathology, Brooke General Hospital, San Antonio; and Dr. Albert H. Holland, medical advisor to the Oak Ridge Project of the United States Atomic Energy Commission, will speak. That evening, Dr. Morris Fishbein, editor of *The Journal of the American Medical Association* and *Hygeia*, Chicago, will make an address under the sponsorship of Phi Delta Epsilon fraternity. On April 23, Dr. Benjamin B. Wells, director of education and research, M. D. Anderson Hospital for Cancer Research, Houston; Dr. Frances Braceland, psychiatrist of the Mayo Clinic, Rochester, Minn.; Dr. E. C. Hamblen, professor of endocrinology, Duke University School of Medicine, Durham, N. C.; Dr. R. E. Dyer, director of the National Institute of Health, Bethesda, Md.; Dr. Henry Winans, clinical professor of medicine, Southwestern Medical College, Dallas; and Dr. B. M. Baker, Jr., internist at Johns Hopkins University Medical School, Baltimore, will speak. Louie D. Newton, D. D., Atlanta, Ga., president of the Southern Baptist Convention, and other lay leaders will participate in the three-day program. Open house will be maintained with guides to show the public through the building.

Baylor University College of Medicine and Rice Institute are two of the thirteen colleges throughout the nation at which research in atomic energy with fellowships for that purpose will be established by the United States Atomic Energy Commission, according to the Houston *Chronicle*. Up to ten fellowships for graduate students in biology and medicine will be set up in the two Houston institutions for the 1948-1949 term, the recipients to be selected by the National Research Council. About $1,000,000 has been set aside for the nationwide program the first year, and the commission plans now to continue the program for several years. Faculty members will be invited to take a series of short courses during the coming summer at the University of California at Los Angeles, the Institute of Nuclear Studies at Oak Ridge, Tenn., and the Brookhaven National Labora-

tory, Long Island, N. Y., to qualify them for directing the fellows.

Dr. Charles H. Best, professor of physiology at the University of Toronto and co-discoverer of insulin, delivered the annual Phi Beta Pi lecture at Baylor University on March 22, and also gave a series of four lectures at Baylor on the physiology of carbohydrate and fat metabolism.

A grant of $23,315.50 from the National Cancer Institute to aid Baylor University College of Medicine in teaching cancer control to undergraduate medical students and to pursue experimental work in tumor indentification by transplants has recently been announced.

PERSONALS

Dr. Stanley J. Seeger, Dallas, has been named chairman emeritus of the Council on Industrial Health of the American Medical Association. The appointment was made by the A. M. A. Board of Trustees in recognition of Dr. Seeger's years of service as a member of the Council.

Dr. C. E. Eaton, Fort Davis physician, was recently named the outstanding citizen of Fort Davis in 1947, according to the Marfa *Sentinel*. The designation was made by the Mile High Club of Fort Davis.

Dr. Charles M. Shumway, who has practiced medicine and surgery in McKinney for twenty years, retired from active practice on March 1, reports the McKinney *Courier-Gazette*.

Dr. E. H. Cary, Dallas, is the subject of a biography scheduled for publication this spring by Mathis, Van Nort & Company. The book will be titled "More Than Armies" and is by Booth Mooney.

Dr. J. Harvey Black, Dallas, will participate in a panel discussion at the meeting of the American College of Physicians in San Francisco, April 19-23.

MARRIAGES

Dr. Donald Harvey Brandt, Dallas, married Miss Helen Wilma Fishman, Austin, on March 14. They will live in Dallas.

BIRTHS

To *Dr. and Mrs. W. S. Lorimer, Jr.*, Fort Worth, a son, Wishard Speer III, February 3.

To *Dr. and Mrs. H. W. Savage*, Fort Worth, a son, Hugh Walter, Jr., January 31.

To *Dr. and Mrs. J. B. Rountree, Jr.*, Lubbock, a son, Lawrence Childress, January 6.

To *Dr. and Mrs. F. G. Eidman*, Houston, a daughter, Linda Margaret, January 8.

To *Dr. and Mrs. C. Gary Turner*, Houston, a son, Philip Gary, January 8.

To *Dr. and Mrs. Carlos Hamilton*, Houston, a daughter, Carolyn Ruth, January 16.

SOCIETY NEWS

Bee-Live Oak-McMullen Counties Society

March 1, 1948

(Reported by D. W. Davis, Secretary)

Fracture of Hip—John J. Hinchey, San Antonio.
Head Injuries—Ralph A. Munslow, San Antonio.

Six members and two guests of Bee-Live Oak-McMullen Counties Medical Society met for dinner in Beeville on March 1. The program outlined was presented, and G. W. Sansom, E. E. Miller, and Tom B. Reagan were appointed to an advisory committee for the local public health unit. John W. Reagan, Beeville, was elected to membership.

Bowie County Society

February 20, 1948

Bowie County Medical Society met with the Miller County Medical Society in Texarkana on February 20 for a banquet at which Dean Joseph T. Roberts of the Arkansas University School of Medicine at Little Rock was the chief speaker. The society also went on record in favor of equipping an operating room in the new St. Michael's Hospital and a committee was appointed to start soliciting donations for the project.

Brazoria County Society

February 26, 1948

(Reported by A. O. McCary, Secretary)

Present Status of Malaria and Its Causative Agents—W. D. Gingrich, University of Texas Medical Branch, Galveston.

Brazoria County Society members and their wives, and dentists of the county and their wives were guests of the Dow Hospital physicians in Freeport at a chicken dinner February 26. A guest from Galveston presented the paper named above.

Brown-Comanche-Mills-San Saba Counties Society

February 9, 1948

Medical Treatment of Peptic Ulcer—S. W. Shibler, Temple.
Surgical Treatment of Peptic Ulcer—R. M. Bartells, Temple.

New methods of treating peptic ulcer were discussed by two guests from Temple when the Brown-Comanche-Mills-San Saba Counties Medical Society met in Brownwood on February 9.

Colorado-Fayette Counties Society

February 3, 1948

(Reported by C. I. Shult, Secretary)

Anesthesia—Larry Schuhmacher, Houston.

Colorado-Fayette Counties Medical Society held a dinner meeting in Weimar on February 3 with the auxiliary also present for the meal. The scientific program consisted of a discussion of complications that occur with the use of various types of anesthetics, their causes, and methods of prevention.

March 2, 1948

(Reported by C. I. Shult, Secretary)

Surgery on Infants and Children—Luke Able, Houston.

Members of the Colorado-Fayette Counties Medical Society met March 2 in Columbus for the scientific program outlined. The subject of medical ethics was also discussed, and the society voted to write a letter to each of the medical schools in Texas recommending that a course in medical ethics be instituted. Members of the auxiliary joined the society for dinner prior to the meeting.

Dallas County Society

February 12, 1948

(Reported by W. W. Fowler, Secretary)

Treatment of Glaucoma—Lester H. Quinn, Dallas.
Breech Presentation—Wayne T. Robinson, Dallas.
Trauma and Interruption of Pregnancy—A. W. Diddle, Dallas.

Dallas County Medical Society had the scientific program outlined when it met February 12 in Dallas. Drs. Homer Powell, Edgar Wills Burnett, William Claiborne Browne, and Harry Everett Nelson were nominated for honorary membership in the State Medical Association, and nine physicians were elected to membership in the society.

February 26, 1948

(Reported by W. W. Fowler, Secretary)

Endometrial Dating—Max H. Blend, Dallas.
Discussion—J. E. Robertson, Dallas.
New Developments in Treatment of Carcinoma of Cervix by Irradiation Therapy—Charles L. Martin.
Discussion—Herman I. Kantor, Harry M. Spence, and J. E. Robertson, Dallas.
Kidney Tumors: Diagnosis and Treatment—Harry M. Spence, Sidney S. Baird, and Foster Fuqua, Dallas.
Discussion—G. R. Williams and Robert R. Shaw, Dallas.

The scientific program outlined was given when Dallas County Medical Society met February 26 in Dallas. Seventy-one were present.

The society adopted a resolution condemning the practice of accepting rebates.

C. C. Nash, councilor of the Fourteenth District, called attention to the proposed revision of the Con-

stitution and By-Laws of the State Medical Association and urged members of the society to familiarize themselves with the contemplated changes.

Dr. E. S. Gordon, Dallas, was nominated for honorary membership in the State Medical Association.

A resolution in tribute to the late Dr. W. E. Howard, Dallas, was adopted.

The society approved the recommendation of the executive council that Mr. Millard J. Heath, executive secretary, be sent to the American Medical Association annual session in Chicago in June.

Falls County Society

February 16, 1948

Experiences with Vagotomy—B. F. Freeman, Chief Surgeon, Veterans Facility, Temple.
Infectious Hepatitis—J. M. Boykin, Assistant Chief of Medicine, Veterans Facility, Temple.

The February meeting of Falls County Medical Society was postponed to February 16 because of the death of Dr. N. D. Buie. When the meeting was held in Marlin, the two scientific papers named above were presented in a program arranged by Howard O. Smith. Dinner preceded the program.

Fannin County Society

February 26, 1948

The 1947 officers of Fannin County Medical Society were reelected February 26 to serve another term. The officers, who were named at a dinner meeting in Bonham, are L. C. Biggers, president; Joe Risser, vice-president; and E. C. Williams, secretary.

Grayson County Society

March 9, 1948

(Reported by Robert W. Duncan, Secretary)

Tumors of Kidney—Harry Spence, Dallas.

Twenty-seven members and guests of Grayson County Medical Society met March 9 in Sherman. C. C. Nash, Dallas, Fourteenth District Councilor, urged all the members to study the proposed changes in the Constitution and By-Laws of the State Medical Association. The scientific paper named was presented.

Hardin-Tyler Counties Society

March 9, 1948

Ten members of the Hardin-Tyler Counties Medical Society met in Kountze on March 9 to hear a talk by G. B. Stephenson, orthopedic surgeon of Beaumont.

Jefferson County Society

March 8, 1948

(Reported by E. Mittendorf, Executive Secretary)

Clinical Studies in Blood Volume—Champ Lyons, New Orleans.

Jefferson County Medical Society, meeting March 8 in Port Arthur, unanimously voted to place the name of L. C. Powell, Beaumont, before the societies of District 10 in an effort to secure his nomination and election to the office of councilor for the district. It was also voted to contribute $50 to aid the Woman's Auxiliary in its campaign to recruit young women to study nursing. The paper named was presented by Champ Lyons, visitor from New Orleans.

Johnson County Society

February 17, 1948

(Reported by O. T. Smyth, Jr., Secretary)

Clinical Pathological Conference—W. P. Ball, Cleburne, Leader.
Use of Minute Amounts of Histamine in Treatment of Allergic Disorders and Peptic Ulcer—J. G. Little, Cleburne.
Saddle Block Anesthesia in Obstetrics—W. R. Whitehouse, Cleburne.

Johnson County Medical Society met February 17 at Cleburne for the scientific program outlined. The society voted to submit the names of Dr. A. F. Garner, Grandview, and Dr. M. Dennis, Cleburne, to the State Medical Association for honorary membership. It was also voted to invite G. V. Brindley, Temple, councilor of the Twelfth District, to meet with the society in March. The president, J. W. Pickens, appointed C. C. Jowell, J. G. Little, and T. F. Yater to the cancer committee, and W. P. Ball, W. R. Whitehouse, and O. T. Smyth, Jr., to the public relations committee. The society authorized sending a floral wreath to the funeral of Dr. W. J. Cummings, Alvarado, in tribute to his faithful membership in the society for many years.

Kaufman County Society

March 2, 1948

D. H. Hudgins, Forney physician celebrating his eightieth birthday, was honored by the Kaufman County Medical Society at a noon banquet March 2 in Terrell. One of the founders of the society, Dr. Hudgins was presented with a desk set in appreciation of his long years of service. D. T. Friddell, Terrell, gave a scientific paper.

Kerr-Kendall-Gillespie-Bandera Counties Society

February 9, 1948

Atomic Energy—Lee D. Cady, Clinical Medical Director, Veterans Administration, Dallas.
Nonsurgical Treatment of Ruptured Peptic Ulcers—Major E. R. Henry, Brooke General Hospital, San Antonio.
Outside Care of Veterans—E. T. Norman, Chief Medical Officer.

Members of Kerr-Kendall-Gillespie-Bandera Counties Medical Society met at the Veterans Hospital, Legion, on February 9 for the program outlined.

March 15, 1948

(Reported by Roger Stevenson, Secretary)

Problem Child (motion picture).
Animated Hematology (motion picture).

Two motion pictures made up the scientific program for the meeting of the Kerr-Kendall-Gillespie-Bandera Counties Medical Society in Fredericksburg on March 15.

Lubbock-Crosby Counties Society

March 2, 1948

(Reported by Roy G. Loveless, Secretary)

Thirty members of the Lubbock-Crosby Counties Medical Society met in Lubbock on March 2 with R. C. Douglas, the president, presiding. The program consisted of a discussion of the spastic child and the Crippled Children's Council in Lubbock. M. H. Benson and Messrs. John Broome and Alex McDonald participated. The society was asked to endorse the enlargement of the crippled children's work in Lubbock to include a treatment center for spasticity. Following a general discussion, B. A. Jenkins moved that the medical society endorse the spastic program in its entirety. Upon second by Allen T. Stewart, the motion was passed unanimously. The president announced his committee appointments for the year.

Palo Pinto-Parker Counties Society

February 10, 1948

Members of Palo Pinto-Parker Counties Medical Society met February 10 in Mineral Wells with R. D. Baker, Fort Worth, councilor of the Thirteenth District, and S. W. Wilson, Fort Worth, secretary of the Thirteenth District Medical Society, as guests. A report of the meeting of the State House of Delegates called in January was made by Ben L. McCloud. W. B. Lasater was appointed chairman of the local cancer society and Carl H. Whalen, Weatherford, was elected secretary to replace H. V. Allen, Jr., who was leaving for New Orleans.

Potter County Society

March 4, 1948

A dinner for members of the Potter County Medical Society and the Potter County Dental Society was given in Amarillo March 4 by Dr. George Ingham, honoring William Shearer, Omaha, Neb., past

president and founder of the American Association of Plastic Surgeons. Dr. Shearer addressed the group on the subject "Relations of Mouth Infections to Complications of the Human Body." Fred S. Meyer, oral surgeon of Minneapolis, and Frank Raasch, Kearney, Neb., were also present.

Randall-Deaf Smith-Parmer-Castro-Oldham Counties Society

March 3, 1948

(Reported by M. W. Nobles, Secretary)

Leukemia—M. W. Nobles, Hereford.

Eight members and two guests were present for the March 3 meeting of Randall-Deaf Smith-Parmer-Castro-Oldham Counties Medical Society in Hereford. A paper on leukemia by M. W. Nobles, Hereford, and a diagnostic problem were presented, after which refreshments were served.

Tarrant County Society

February 3, 1948

(Reported by W. P. Higgins, Jr., Secretary)

Management of Acute Pancreatitis—F. L. Snyder, Fort Worth.
Discussion—Harold J. Shelley and Burgess Sealy, Fort Worth.
Chronic Recurrent Pancreatitis—Ted Lace, Fort Worth.
Discussion—T. H. Thomason, John J. Andujar, and William M. Crawford, Fort Worth.

The scientific program outlined was presented for seventy-five members and four visitors at the February 3 meeting of Tarrant County Medical Society in Fort Worth. Announcement was made by J. F. McVeigh of National Heart Week, February 8-14. Three new members were elected, and tribute was paid to the Rev. Thomas Lenox, father of W. R. Lenox, who died February 2.

February 17, 1948

(Reported by W. P. Higgins, Jr., Secretary)

Peritonitis and Pelvic Abscesses of Appendiceal Origin—Robert D. Bickel, Fort Worth.
Discussion—Irvan Ward and W. B. West, Fort Worth.
Case of Congenital Evisceration with Atresia of Colon—Robert G. Lemon and James N. Walker, Fort Worth.
Discussion—W. F. Armstrong and R. J. White, Fort Worth.

Tarrant County Medical Society met February 17 in Fort Worth with fifty-seven members and three visitors present. The program outlined was presented with W. B. West, chairman of the program committee, presiding.

March 2, 1948

(Reported by W. P. Higgins, Jr., Secretary)

Use of Sulfathalidine in Abdominal Surgery (motion picture)—Courtesy of Sharp & Dohme.
Congenital Atresia of Esophagus with Tracheo-Esophageal Fistula; Report of Successful Case of Primary Anastomosis—R. J. White, Fort Worth.
Gastric Rugae—R. P. O'Bannon, Fort Worth.
Hematuria—Keller Doss, Fort Worth.

The program outlined was presented for sixty-three members of Tarrant County Medical Society meeting March 2 in Fort Worth. Tribute was paid Mrs. Nora Price, mother of Sidney Price, who died February 27. Milton Turner, hospital resident, was elected to membership.

March 16, 1948

(Reportel by W. P. Higgins, Jr., Secretary)

Human Sterility (motion picture)—Courtesy of Winthrop Chemical Company.
Nonperforating Ocular Lesions and Their Treatment—W. H. McKenzie, Fort Worth.
Tonsillectomy and Poliomyelitis—J. W. Eschenbrenner, Fort Worth.
Nasal and Postoperative Tonsil and Adenoid Hemorrhage—Charles E. Ball, Fort Worth.

Tarrant County Medical Society, meeting March 16 in Fort Worth, had the scientific program outlined. A letter from the president of Jefferson County Medical Society asked that the delegates from Tarrant County Medical Society be instructed to propose to the House of Delegates of the State Medical Association the establishment of a State Medical Association Building as a "Holman Taylor Memorial." A second letter from Cameron-Willacy Counties Medical Society requested that the Tarrant County delegates be instructed to recommend to the House of Delegates an increase in state dues to provide for (1) assistance to the Woman's Auxiliary, (2) a retirement fund for State Medical Association employees, (3) public relations counsel, and (4) a fireproof building for the Association. Upon motion by Tom Bond, seconded by Charles E. Ball, both matters were referred to the board of directors of the society for study and presentation at the next meeting.

Upon recommendation of the public health advisory committee, L. O. Godley, chairman, the society approved a proposal that home nursing service be made available through the public health and welfare department and that the president appoint a committee to formulate plans and policies with D. A. Reekie, director of public health and welfare.

Fifty-one members and two visitors were present.

Tom Green-Eight County Society

February 2, 1948

(Reported by Carl A. Kunath, Secretary)

Case Report—H. C. Samuel, Sanatorium.
Use of Streptomycin in Tuberculosis—Jack Pruitt, Sanatorium.

Twenty-eight members and eight visitors were present for the Tom Green-Eight County Medical Society meeting February 2 at the State Tuberculosis Sanatorium. The Sanatorium staff was host for dinner and the scientific program outlined.

R. E. Windham gave a report of the special session of the House of Delegates of the State Medical Association held in January. He also urged that generous contributions be made to the National Physicians Committee.

The secretary read a letter from a San Angelo woman relative to her plan to organize and conduct a registry for undergraduate and practical nurses in San Angelo. After a general discussion it was decided that no action would be taken by the society, but that the secretary should notify the woman that any such registry should be organized and operated with the consent of local and state registered nurses organizations.

No action was taken on the announcement by James N. White that another San Angelo woman is interested in establishing a home for chronic invalids and wishes the support of the society.

March 1, 1948

Coronary Occlusion—G. D. Nesrsta, San Angelo.

Tom Green-Eight County Medical Society, meeting March 1, in San Angelo, endorsed the proposed chronic disease hospital for San Angelo with the condition that acceptable plans for its operation and maintenance be worked out. A committee consisting of F. T. McIntire, chairman; Victor Schulze, H. M. Anderson, and J. A. Bunyard was appointed to work with other interested organizations in formulating details for financing and constructing the hospital. The scientific paper named was presented.

Upshur County Society

March 4, 1948

Care of Newborn Babies (motion picture).

Seven members of Upshur County Medical Society met in Gilmer on March 4 to see the motion picture named. A general discussion and short business session were also held.

Webb-Zapata-Jim Hogg Counties Society

February 2, 1948

(Reported by M. Valls, Secretary)

A discussion of roentgen-ray films and diagnosis in relation to them was presented to the Webb-Zapata-Jim Hog Counties Medical Society in Laredo, February 2, by G. Turner Moller, urologist, and L.

M. Garrett, radiologist, both of Corpus Christi. The program was under the direction of F. M. Canseco.

F. A. Musacchio, health officer, reported that a mass roentgen-ray chest survey conducted by the State Health Department was in progress. W. R. Powell announced a crippled children's clinic to be held April 3. M. Rothenstein reported that response to the drive for funds by the American Heart Association had not been as good as anticipated.

Seventh District Society

February 19, 1948

(Reported by David Wade, Secretary)

The Interplay of the Circulation and the Kidney—Tinsley R. Harrison, Dallas.
Renal Excretion and Conservation of Vital Body Constituents—Morton F. Mason, Dallas.
Clinical Recognition of Disorders of Fluid Balance—Carl A. Moyer, Dallas.
Questions and Answers.
Treatment of Acute Circulatory Failure—Tinsley R. Harrison.
Simple Laboratory Guides to Disturbances of Fluid Balance—Morton F. Mason.
Treatment of Disorder of Fluid Balance—Carl A. Moyer.
Questions and Answers.
Banquet: Some Medical Thoughts for Those Who Possess M. D.'s (Either by Degree or by Capture)—Carl A. Moyer.

The Seventh District Medical Society held its mid-winter scientific session in Austin on February 19. The afternoon program, dealing primarily with fluid balance, was presented by three members of the faculty of Southwestern Medical College, Dallas. A banquet for members of the society and their wives was given in the evening, with Carl A. Moyer, Dallas, as the speaker.

Eleventh District Society

March 11, 1948

(Reported by C. B. Young, Secretary)

Tularemia—Griff Terry Ross, Mount Enterprise.
Discussion—George Hilliard, Jacksonville, and J. W. Birdwell, Tyler.
Headaches of Ocular and Nasal Origin—Jim Vaughn, Tyler.
Discussion—George Allen, Tyler, and John Dean, Crockett.
Reversible Heart Disease—Paul A. Rockwell, Athens.
Discussion—Ben Wilson, Tyler, and C. H. Stripling, Jacksonville.
Postpartum Hemorrhages—Marvin Lamb, Jacksonville.
Discussion—Clayton Shirley, Tyler, and R. Q. Hunter, Palestine.
Luncheon: Discussion of Legislative and Public Relations Activities—Representatives of the Committee on Legislation and the Committee on Public Relations, State Medical Association.
Suggestions on Diagnosis of Gastrointestinal Diseases—John S. Bagwell, Dallas.
Discussion—J. T. Boyd, Jacksonville, and E. G. Faber, Tyler.
Low Back Pain—Milton Freiberg, McKinney.
Discussion—E. H. Caldwell, Tyler, and Fred E. Felder, Palestine.
Benign anl Malignant Lesions of Cervix—John A. Wall, Houston.
Discussion—Leland Rhine, Tyler, and R. T. Travis, Jacksonville.

Eleventh District Medical Society held a one-day scientific meeting March 11 in Palestine. The program outlined was presented. Members of the Woman's Auxiliary were present for the luncheon.

The next meeting of the society will be held in Tyler the third or fourth week in October.

Twelfth District Society

January 13, 1948

(Reported by H. F. Connally, Jr., Secretary)

Surgical Treatment of Hypertension—Raleigh R. White, Temple.
Coronary Artery Heart Disease—George R. Herrmann, University of Texas School of Medicine, Galveston.
Treatment of Chronic Paranasal Sinusitis—John L. Burgess, Waco.
Scope of Plastic Surgery—T. G. Blocker, Jr., University of Texas School of Medicine, Galveston.
Thrombophlebitis and Phlebothrombosis—Harvey M. Richey, Waco.
Discussion of Some Orthopedic Problems—Douglas R. Swetland, Marlin.

The scientific program outlined was presented before 107 members and guests of the Twelfth District Medical Society when it met in Waco on January 13. Tate Miller, Dallas, President-Elect of the State Medical Association, was speaker at a luncheon held jointly with the Woman's Auxiliary and for which the McLennan County Medical Society was host.

The society elected R. R. White, Temple, president, and H. F. Connally, Jr., Waco, secretary, for the ensuing year. The next meeting will be held in Bryan on July 13.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. Edward C. Ferguson, Beaumont; President-Elect, Mrs. S. M. Hill, Dallas; First Vice-President, Mrs. A. N. Boyd, Houston; Second Vice-President, Mrs. H. P. Ledford, Wichita Falls; Third Vice-President, Mrs. A. L. Delaney, Liberty; Fourth Vice-President, Mrs. W. Frank Armstrong, Fort Worth; Recording Secretary, Mrs. M. A. Ramsdell, San Antonio; Corresponding Secretary, Mrs. W. G. Wallace, Beaumont; Publicity Secretary, Mrs. J. F. Campbell, Fort Worth; Treasurer, Mrs. J. Guy Jones, Dallas; Parliamentarian, Mrs. Paul Brindley, Galveston.

AUXILIARY NEWS

Angelina County Auxiliary and Medical Society held a dinner and dance January 9 at the Lufkin Country Club. Approximately sixty were present.

Nine members of Angelina County Auxiliary were luncheon guests of Mrs. Felix Peebles at Lufkin, January 27. A short business session was held, during which a nominating committee composed of Mesdames Robert Taylor, Joe Burch, and Mitchell Gibson was appointed.

Work with exceptional children in the county was described by Mrs. Ella Glass at the February 27 meeting of the Angelina County Auxiliary in the home of Mrs. J. H. Wade, Lufkin. Mrs. Glass requested the support of the Auxiliary in her work. The project for the year will be the furnishing of a children's ward at the county hospital.—Mrs. T. A. Taylor, Reporter.

Bell County Auxiliary heard a discussion of the state's program for the rehabilitation of spastic children by Senator Buster Brown at its February meeting in Temple. New officers were elected as follows: Mesdames H. B. Anderson, president; W. A. Chernosky, first vice-president; L. M. Cochran, second vice-president; F. N. Hammond, recording secretary; L. R. Talley, corresponding secretary; Jack Christian, treasurer; A. E. Wiedeman, parliamentarian; Bert DeBord, press reporter; and E. R. Viers, historian.

Mesdames A. C. Scott, Jr., J. F. McKenney, Frank Robinson, George Ehni, R. V. Murray, and M. L. Winston were hostesses at a social hour, during which Mrs. Cochran and Mrs. R. R. White poured. George Washington's birthday decorations were used.

An Easter fashion show was enjoyed by the Bell County Auxiliary on March 12 in Temple. Mesdames Valter Brindley, Jr., A. H. Alsup, R. C. Curtis, N. C. Murphy, and four other women modeled clothes from the Bauer-McCann store of Waco, while Mrs. Paul Ramey played soft music. Hostesses included Mesdames Leroy Cochran, R. L. Duff, A. D. Hurt, G. S. Littell, William F. Bonner, Albert T. Hume, Bromley Freeman, and R. A. Wise.—Mrs. E. O. Bradfield.

Bexar County Auxiliary held a public relations day meeting February 13 in San Antonio with fifty invited guests from outstanding civic and philanthropic clubs. Dr. David A. Todd, immediate past president of the Texas Society of Pathologists, member of the Committee on Cancer of the State Medical Association, and member of the executive committee of the Texas Division, American Cancer Society, presented a concise address on cancer, which was followed by an open forum on the subject. The guests were also entertained with an oral quiz concerning the basic science law and prepayment plans for medical service, conducted by Mrs. Tom Folbre.

The quiz was a sample of the short quizzes held each meeting during the past year as part of a continuous study program to inform members of the Auxiliary about the medical profession, the auxiliary, health problems, legislation pertaining to health, and other health matters. The valentine motif was carried out in the dining room when coffee and cake were served to the guests by Mesdames W. E. Muldoon, and E. L. Mueller.

Preceding the program arranged for the visitors, the Auxiliary held a business session at which reports were given by the treasurer, Mrs. S. Foster Moore, and Mrs. Brad Oxford, chairman of physical examinations. Recommendations from the board of directors were read and acted upon. The nominating committee, Mrs. Willis Allin, chairman, proposed the following officers, who were elected: Mesdames B. H. Passmore, president; Roy G. Giles, first vice-president; Herbert Hill, second vice-president; S. W. Taylor, third vice-president; J. B. Copeland, fourth vice-president; J. B. Miller, Jr., recording secretary; W. H. Hargis, corresponding secretary; C. C. Shotts, publicity secretary; Walter Walthall, treasurer; S. Foster Moore, auditor; and Fletcher Clark, Jr., historian.—Mrs. John W. Worsham, Publicity Chairman.

Cass-Marion Counties Auxiliary met March 10 at the home of Mrs. H. L. D. Jenkins, Hughes Springs. Officers who will serve the coming year are Mesdames A. E. Starnes, president; James Brooks, vice-president; T. M. Steed, Jr., secretary-treasurer; Ernest Grumbles, public relations chairman; J. M. DeWare, publicity chairman; W. S. Terry, program chairman; James Brooks, Hygeia chairman.—Mrs. J. M. DeWare III, Publicity Chairman.

Cherokee County Auxiliary honored physicians of the county at a banquet February 24 in Jacksonville. The Rev. Marvin Vance, pastor of the First Methodist Church, was the principal speaker. Mrs. Fleming Newton presented several whistling solos and Miss Crystal Canon gave a dissertation on Texas. Mrs. Lewie L. Travis was chairman of the committee arranging the program, with Mrs. George Hilliard assisting. Mrs. Marvin Lamb presided.

Cooke County Auxiliary assisted in the tuberculosis survey made by the Texas Tuberculosis Association mobile x-ray unit in Gainesville, February 16-20, by taking case histories and distributing literature.

Mrs. Nora Wooldridge Price, widow of the late Dr. W. J. Price, Gainesville, died at her home there February 28, 1948. Mrs. Price is survived by two sons, Dr. Sidney Price, Fort Worth, and Dr. Jerry C. Price, New York. Two brothers and several grandchildren also survive.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Auxiliary joined the medical society for a steak dinner February 19 at Odessa, and then met separately for a business meeting and a discussion and display of Sandwich glass by Mrs. Hayden Barrow.—Mrs. V. J. Elliott.

Ellis County Auxiliary held a luncheon and business meeting February 25 at Waxahachie. Eighteen members elected the following officers: Mrs. S. H. Watson, president; Mrs. James Jeters, first vice-president, and Mrs. J. E. Jones, secretary-treasurer. It was decided to contribute subscriptions to *Hygeia* to the Sims Library, Waxahachie, the Ennis Public Library, and the public schools, and to make a donation to the memorial fund of the State Auxiliary. —Mrs. J. E. Jones, Secretary.

El Paso County Auxiliary entertained Mrs. Edward C. Ferguson, Beaumont, State President, with a tea on February 9 in El Paso. The tea also celebrated the twenty-sixth anniversary of the El Paso Auxiliary. Mrs. Robert F. Thompson and Mrs. A. D. Long headed the hostess group, which included the present and past presidents of the auxiliary. Mesdames Arthur P. Black, president; George Turner, past State President; and H. H. Varner, president-elect, presided at the tea table.

"Fun with Flowers" was the theme for the St. Patrick's Day tea held March 8 in El Paso by El Paso County Auxiliary. Mrs. B. F. Stevens spoke on that subject, illustrating her talk by making flower arrangements. Mrs. J. J. Gorman reviewed medical current events. Hostesses were Mesdames F. A. Snidow, Willard W. Schuessler, James A. Pickett, Sam Rennick, Richard Phillips, Thomas K. Preston, Phillip Prieto, R. L. Ramsey, Palmer Reed, Charles Rennick, Paul Rigney, Ross Rissler, J. B. Robbins, R. B. Rodarte, E. B. Rogers, S. P. Rogers, H. T. Safford, Frank Schuster, Stephen Schuster, T. J. B. Shanley, and W. P. Rogers.—Mrs. W. W. Schuessler.

Galveston County Auxiliary enjoyed a tea and style review February 9 in Galveston with Dr. Chauncey D. Leake, vice-president and dean of the University of Texas School of Medicine, presenting a discussion of hospital prepayment plans. The style show was presented by members of the Medical Dames with Mrs. Dan R. Smith as commentator. Mrs. Dick P. Wall and Mrs. Martin L. Towler presided at the tea table, which was decorated in the valentine theme. Mrs. Charles R. Allen was chairman of arrangements, assisted by Mesdames Edward R. Thompson, John Middleton, and George McReynolds. Hostesses were Mesdames E. S. McLarty, B. I. Burns, Jesse B. Johnson, C. F. Mares, and Carroll T. Adriance.

Officers were elected by the Galveston County Auxiliary at a luncheon March 9 in Galveston. The new officers are Mesdames Erle E. Wilkinson, president; Martin L. Towler, president-elect; John L. Otto, vice-president; Edgar F. Jones, recording secretary; Carroll T. Adriance, corresponding secretary; and Paul B. de Mesquita, treasurer. J. Louis Neff, Houston, executive director of the Texas Division, American Cancer Society, spoke on cancer control, and Mrs. James A. Scofield discussed period furniture. Mesdames John J. Delany and Weldon Stephens were in charge of arrangements.—Mrs. C. Hughes Gilliam, President.

Grayson County Auxiliary met in Sherman on March 12 to elect officers and to hear a talk on the social and economic results of alcoholism by Horace Fort, a representative of the Yale Foundation for Research on Alcoholism. The new officers include Mesdames John Hardy, Sherman, president; John Gleckler, Denison, first vice-president; Emmett Essin, Sherman, second vice-president; James Lay, Sherman, secretary; Robert Dunvan, treasurer, and E. L. Hailey, Denison, parliamentarian.

Hunt-Rockwall-Rains Counties Auxiliary held its annual business session in the home of Mrs. J. W. Swindell, Greenville, early in February. Upon the recommendation of Dr. Frank Little, president of the county medical society, and Dr. Ralph Jenks, county health officer, the auxiliary voted to organize a tuberculosis association for Greenville and Hunt County, and officers were appointed for that purpose as follows: Mrs. Frank Little, president; Mrs. Joe Becton, vice-president; and Mrs. Henry Mehmert, secretary.

The auxiliary was led in a devotional by Mrs. Anna Becton Boykin. Dr. Charles Schroeder urged support of the drive for funds of the American Heart Association. Officers for the coming year were elected as follows: Mesdames Frank Little, president; Joe Becton, vice-president; W. B. Reeves, second vice-president; B. F. Arnold, third vice-president; Henry Mehmert, secretary; F. S. Caruthers, corresponding secretary; W. P. Philips, treas-

urer; J. S. Cooper, publicity; M. L. Wilbanks, parliamentarian; J. W. Ward, historian; W. L. Yarbrough and Anna Becton Boykin, delegates to city federation; Henry Meier and Frank Little, delegates to State Auxiliary convention.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary met March 5 at the home of Mrs. A. P. Allison, Kerrville. Mesdames H. H. Gallatin, C. L. McClellan, J. B. Des Roches, and L. B. Crummine were cohostesses. Twenty-two members were present for the business meeting, during which it was voted to send $5 to the Memorial Fund, $5 to the Library Fund, $19.50 for national dues; $10 to the State Auxiliary for stationery; $5 to mothers with new babies to start their bank accounts; $15 to beautification of the Kerr County Courthouse in memory of Dr. and Mrs. E. E. Palmer; and Easter baskets of fruit to the State Sanatorium. After transacting other business, Mrs. David McCullough gave a paper on "Public Relations for the Woman's Auxiliary," prepared by the Public Relations Committee of the State Medical Association. Sonny Allison played several piano selections, and coffee and cake were served by Mrs. S. E. Thompson and Mrs. C. C. Jones.

Officers elected to serve the auxiliary during the coming year are Mesdames Charles Livingston, president; L. A. Feller, first vice-president; C. B. Matthews, second vice-president; A. P. Allison, third vice-president; D. E. Packard, secretary; Roger Stevenson, treasurer; William L. Secor, parliamentarian, and V. J. Sutch, historian.—Mrs. D. E. Packard, Secretary.

McLennan County Auxiliary met in Waco recently for brunch and a panel discussion on medical public relations. Mesdames Ray Bullard, M. C. Carlisle, Lawrence Collins, E. B. Fine, C. J. Traylor, and Woodrow Avent participated. It was voted to contribute to the Red Cross, Student Loan Fund, Library Fund, and Crippled Children's Hospital. The auxiliary also plans to sponsor a poster contest in the junior high schools on the importance of physical examinations.

New officers were elected as follows: Mesdames John E. Talley, president; F. F. Kirby, first vice-president; Woodrow Avent, second vice-president; E. B. Fine, third vice-president; D. D. Warren, fourth vice-president; Lawrence Collins, recording secretary; H. R. Dudgeon, Sr., corresponding secretary; W. A. Wood, historian; Stanley Howard, parliamentarian; R. E. Bullard, treasurer; and J. R. Shipp, publicity.—Mrs. F. F. Kirby, Publicity Secretary.

Nueces County Auxiliary met February 18 in Corpus Christi to hear a talk by A. A. Lichtenstein, member of the hospital planning board, on the report made by Dr. B. I. Burns, hospital director at the University of Texas School of Medicine, Galveston, following his survey of the health and hospital facilities of Nueces County. Tea was served by Mesdames Kleberg Eckhardt, A. J. Ashmore, L. M. Garrett, James L. Barnard, and Hugh Kennedy.—Mrs. E. Jackson Giles.

Tarrant County Auxiliary held its annual dinner dance honoring husbands of the members February 7 in Fort Worth. One hundred fifty were present for the entertainment, for which the valentine motif was used. Members of the executive board, including Mesdames Tom Bond, J. F. Campbell, John Eschenbrenner, H. O. Deaton, Robert Cochran, M. A. Griffith, W. B. West, Theron Funk, J. W. Shoemaker, W. G. Phillips, X. R. Hyde, H. S. Renshaw, and M. H. Crabb, their husbands, and Dr. May Owen were in the receiving line. The entertainment and flowers committee was responsible for arrangements, members of the committee being Mesdames Hub Isaacks, Jerrell Bennett, Frank Halpin, A. D. Ladd, Charles Ray Lee, H. C. Thomas, W. W. Wood, Jr., J. H. Steger, J. H. Chambers, and A. E. Jackson. —Mrs. Theron Funk, Publicity Secretary.

Tarrant County Auxiliary held its annual open meeting to which presidents of other women's organizations were invited on February 13 in Fort Worth. Dr. Will S. Horn was presented in a talk on "You and Your Heart" by the public relations chairman, Mrs. John W. Eschenbrenner. Mrs. Tom B. Bond, president, greeted the guests. More than two hundred members and guests were served tea by Mesdames M. H. Crabb, Franklin Campbell, Ivan H. Readinger, John W. Eschenbrenner, John C. Powell, Jr., James Walker, Jr., Irvan Ward, Charles E. Ball, W. D. Marrs, R. C. Stow, John A. Wiggins, Burgess Sealy, J. Hyal Brown, Nathan Carpenter, Richard B. Grammer, and C. C. Garrett.

Washington County Auxiliary met in Brenham on February 23 for luncheon and a continuation of its study of cancer and cancer control. Mrs. Robert A. Hasskarl read a paper on cancer of the skin, lip, and tongue. Mrs. Hasskarl was elected delegate to the State Auxiliary meeting in April, with Mrs. P. V. Pazydrol as alternate.

DEATHS*

Dr. Neil Dugald Buie, Marlin, Texas, died February 9, 1948, of myocardial failure.

Dr. Buie was born April 11, 1879, in Scotland, Ark., the son of Daniel Webster and Sarah Ann (Kelly) Buie. He was graduated from Lott High School, Lott, Texas; Sam Houston State Teacher's College, Huntsville; and Vanderbilt University

DR. NEIL D. BUIE

School of Medicine, Nashville, Tenn. His medical degree was obtained from Vanderbilt in 1907 after he had attended the University of Texas Medical Branch, Galveston. From the time of his graduation until his death, Dr. Buie had practiced in Marlin, where he was owner of the Buie Clinic and Hospital, and president of the Marlin Sanitarium Bath House.

*An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

He was also owner of a sizable amount of land and Hereford cattle.

Throughout his professional life Dr. Buie was a member of the Falls County Medical Society, State Medical Association, and American Medical Association, of which he was also a fellow. He was also a member of the Twelfth District Medical Society and the Southern Medical Association. He had held all the offices in the county and district societies, and in the State Medical Association he was councilor of the Twelfth District from 1923 until 1934, vice-president in 1933-1934, and president in 1941-1942. He was chairman of the Section on Medicine and Diseases of Children in 1919 and was for a number of years a member of the Committee on Legislation. Dr. Buie was a diplomate of the American Board of Internal Medicine, a fellow of the American College of Physicians, and a member of the Military Surgeons Association of the United States. He was a member of the Texas State Board of Medical Examiners for twenty years, formerly chairman of the Executive Committee and president of the Federation of State Medical Boards of the United States, and a member of the Congress on Medical Education and Licensure of the American Medical Association. He was a member of the advisory board of the Gonzales Warm Springs Foundation for Crippled Children and had been chairman of the Falls County chapter of the National Foundation for Infantile Paralysis since its establishment. He was health editor of the *Texas Outlook*, official publication of the Texas State Teachers Association, for fifteen years. He was immediate past president of the Texas Club of Internists, and a member of Alpha Omega Alpha and Phi Chi medical fraternities.

Dr. Buie was a deacon in the Presbyterian Church, a member of the Masonic Order and Shrine, director and past president of the Rotary Club, member of the Lions Club, member and director of the Marlin Chamber of Commerce and Agriculture, former divisional vice-president and president of the East Texas Chamber of Commerce, and past president of the Marlin school board. He served as delegate to state and national Democratic conventions and once was a member of the electoral college. He was a member of Pi Gamma Mu fraternity.

On December 5, 1912, in Marlin, Dr. Buie married Miss Marian Clarkson. He is survived by his wife; one son, Dr. Neil D. Buie, Jr.; and two daughters, Mrs. Charles Cornwell and Miss Marian Buie, all of Marlin; one brother, John Buie, Millersview; and one sister, Mrs. E. C. Jones, Little Rock, Ark.

Dr. Benjamin Lee Cole, Brownsville, Texas, died December 20, 1947, in a local hospital of cerebral hemorrhage.

Born October 25, 1871, at Mineola, Mo., Dr. Cole was the son of Robert Thomas and Nancy (Farris) Cole. He attended school in Montgomery County, Kirksville, and St. Louis, Mo., and was graduated from the College of Physicians and Surgeons, St. Louis, in 1909. He took postgraduate work in surgery and carried on private practice in St. Louis until 1910, when he moved to Corpus Christi. He spent about a year there and about the same period of time in San Antonio before moving to Brownsville in 1912. Dr. Cole had practiced in Brownsville from 1912 until November, 1947, when he retired because of ill health. He was county health officer from 1915 until 1937, during which time he was local surgeon for the Missouri Pacific Railroad. He was city health officer in 1941 and 1942, resigning to accept a position with the U. S. Public Health Service. He was on the staff at Mercy Hospital.

Since 1920 Dr. Cole had been a member of the Cameron-Willacy Counties Medical Society, the State Medical Association, and the American Medical Association. He was elected to honorary membership in the State Medical Association in 1946. He was a Mason, past master of Rio Grande Valley Lodge 81, and a member of the Baptist Church. In earlier life Dr. Cole's hobby was woodworking. His favorite recreation was hunting and fishing.

In 1893 Dr. Cole married Miss Gertrude McCormack, who died in 1895. They had one daughter. On November 28, 1900, in St. Louis, he married Miss Ida True. Four children were born to this union, three of whom preceded Dr. Cole in death. Survivors include his wife; a daughter, Mrs. Edna Dozier; and a son, Robert Claude Cole, all of Brownsville; two sisters, Mrs. J. E. Love and Mrs. Emma C. Humphreys, and a brother, Edwin M. Cole, all of Mineola, Mo.; eleven grandchildren; and three great grandchildren.

DR. BENJAMIN LEE COLE

Dr. William Eager Howard, Dallas, Texas, died February 21, 1948, of angina pectoris.

Dr. Howard was born February 9, 1877, in San Antonio, the son of Dr. Henry Peyton and Lucy Lee (Weir) Howard. He attended the University of Texas, Austin, and Austin College, Sherman, and was graduated in 1897 from the University of Texas Medical Department, Galveston. He served an internship and residency at St. Paul's Hospital, Dallas, and later did postgraduate work at Johns Hopkins University, Baltimore, and Tulane University, New Orleans. Dr. Howard practiced for a short time at Childress, but had been in Dallas fifty years. He specialized in the practice of eye, ear, nose, and throat, but had retired in 1942.

Throughout his professional life Dr. Howard was a member of the State Medical Association and American Medical Association through Dallas County Medical Society. In 1946 he was elected to honorary membership in the State Medical Association, in which he had served as secretary of the Section on Eye, Ear, Nose, and Throat in 1913 and as chairman of the section in 1932. He was a fellow of the American College of Surgeons and had represented the United States in several Pan-American medical meetings held in Mexico. He was one of the founders of the Texas Society of Ophthalmology and Otolaryngology, a former vice-president of the Pan-American Medical Association, and a former surgeon general of the Spanish-American War Veterans. He was a member of the Presbyterian Church, a thirty-

second degree Mason, a member of the Shrine, and a member of the Sons of the Republic of Texas and of the Sons of the American Revolution. He was a member of the order of Carlos Findlay by decree of the President of Cuba. He was a member of the Dallas Rotary Club for more than twenty-five years, and in 1946 was elected to honorary membership. During World War I he was a member of the district board of exemption officials.

Dr. Howard was intensely interested in the history of Texas and had built up an unusually fine collection of Texana. He had donated many books, documents, and paintings pertaining to Texas to various museums, notably the Hall of State, Dallas; Texas Memorial Museum, Austin; San Jacinto Monument Museum, Houston; Alamo Museum, San Antonio; and Gonzales Museum, Gonzales. He was a trustee of the Dallas Historical Society, and served on the advisory board of historical exhibits at the Texas Centennial Exposition in 1936.

Dr. Howard was married May 6, 1900, in Galveston to Miss Augusta T. Muller, who died in 1946. Survivors include one daughter, Mrs. Loughton Thayer Smith and one son, Dr. Hal P. Howard, both of Dallas, and one sister, Mrs. Walter W. Jones, La Feria.

Dr. George McClave Cultra, Amarillo, Texas, pediatrician, died January 4, 1948, of cerebral hemorrhage.

The son of George W. and Mary Luella (McClave) Cultra, Dr. Cultra was born May 16, 1894, in Lincoln, Neb. He attended the public schools in Lincoln and the University of Nebraska, from which he received his doctor of medicine degree in 1919. He served an internship in Kings County Hospital, Brooklyn, and then was line surgeon for the Alaska Railway Company in Alaska for two years. In 1921

DR. GEORGE M. CULTRA

he began practice in Walla Walla, Wash., where he remained until 1925, in that year coming to Amarillo, where he had been active until his death. During his years in Texas, Dr. Cultra specialized in pediatrics. For the past fifteen years he had devoted every other Saturday morning to the Well-Baby Clinic sponsored by the Junior League of Amarillo. He was a member of the staffs of St. Anthony's and Northwest Texas Hospitals.

Since coming to Texas Dr. Cultra had been a member of the State Medical Association and American Medical Association through Potter County Medical Society, of which he was president in 1936. He was also a member of the Panhandle District Medical Society and the American Academy of Pediatrics and was a fellow of the American College of Physicians. He was a member of the Presbyterian Church.

On July 2, 1939, in Amarillo, Dr. Cultra married Miss Dorothy Melton. He is survived by his wife and three children, Dorothy Luella Cultra, George McClave Cultra II, and James Melton Cultra, all of Amarillo, and one sister, Miss Carrie Cultra, Fullerton, Calif.

Dr. William Jackson Cummings, Alvarado, Texas, died in a Fort Worth hospital February 11, 1948, of pneumonia and complications.

Dr. Cummings was the son of Jackson Malberry and Elizabeth (Warren) Cummings. He was born near Cleburne, March 31, 1884. Dr. Cummings received his academic education at Willie Denton College, Joshua, and his medical education at the University of Texas Medical Branch, Galveston, from which he was graduated in 1909. For the next year he was in practice at Ivan, but since that time he had practiced in Alvarado.

Dr. Cummings had been a member of the State Medical Association and American Medical Association through Stephens County Medical Society and later through Johnson County Medical Society, which he had served as president. He was city health officer of Alvarado and local physician for the Missouri, Kansas and Texas Railroad and the Texas Highway Department. He was a charter member of

DR. W. J. CUMMINGS

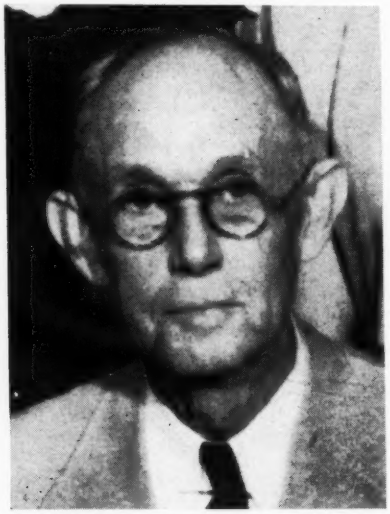
the Alpha Theta chapter of Alpha Kappa Kappa medical fraternity, member of the Presbyterian Church, past president of the Lions Club, an alderman in the Alvarado city council, and for several years was a member of the Alvarado school board.

Survivors include Dr. Cumming's wife, the former Miss Lela Lena Hefner, whom he married February 3, 1910, in Ivan; four daughters, Mrs. Lin Sansom, Cleburne; Mrs. John O. McLeroy, Jr., Dallas; Miss Matilda Cummings, Alvarado; and Mrs. Gerald L. Kline, Ames, Iowa; two sons, Maurice H. Cummings, New Orleans, and William J. Cummings, Jr., Alva-

rado; two sisters, Mrs. J. O. Glassford, Cleburne, and Miss Arra D. Cummings, Fort Worth; and four grandchildren. One son, Jay F. Cummings, preceded his father in death in 1938.

Dr. William A. Davis died at his home in Austin, Texas, on January 27, 1948, of myocarditis and gastric hemorrhage.

The son of William Archer and Elizabeth (Barbee) Davis, Dr. Davis was born November 11, 1873, in Salado. He attended Belton High School, Belton, and old Thomas Arnold College, Salado. His premedical course was obtained at the University of Texas, Austin, and he attended the University of Texas Medical Department, Galveston, for two years before going to Missouri Medical College, St. Louis, from which he was graduated in 1899. He practiced for nine years in Salado, and then went as superintendent of the Methodist Hospital to Monterrey, Mexico, for two years. He returned to Texas to practice in Jourdanton for three years. In 1914 Dr. Davis entered public health work. He was state registrar of vital statistics for Texas a total of twenty-three years, from 1914 to 1918 and from 1928 to 1947. During his administration and almost entirely because of his efforts, Texas was admitted to the



DR. WILLIAM A. DAVIS

United States Registration Area for births and deaths in 1933. He was requested in 1918 to come to Georgia where he organized the vital statistics department and in 1923 succeeded in having Georgia put in the United States Registration Area. He was in Atlanta from 1918 until 1926, when he became city health officer of Fort Worth. In 1928 he returned to Austin as registrar of vital statistics.

Dr. Davis was a member of the State Medical Association and American Medical Association throughout most of his professional career. He held membership successively through Atascosa County, Tarrant County, and Travis County Medical Societies. He was a fellow of the American Public Health Association and president for two terms of the American Association of State Registration Executives, an organization which includes the United States, Canada, Mexico, and Cuba. He served as a member of the advisory committee of the Division of Vital Statistics of the Census Bureau for four years prior to the census of 1940, and in 1918 was appointed by the governor to a special commission to investigate conditions in Texas affecting public health. He prepared and distributed to the public schools in 1917 a booklet entitled "Ten Lessons in Public Health." He was a member of the Methodist Church and a Mason.

Dr. Davis is survived by his wife, the former Miss Miriam J. Cother, whom he married July 7, 1898, at Demmings Bridge, Texas, and one daughter, Mrs. Lanham Croley, Dallas. A son died in 1918.

Dr. Thomas Noah Dyson, San Antonio, Texas, died at his home November 12, 1947, of coronary occlusion.

Dr. Dyson was born December 17, 1884, at Ashville, Ala., the son of Thomas Brown and Caroline Dyson. He attended Oakland Normal Institute, Yale, Miss., from which he received the bachelor of science degree, and Baylor University College of Medicine, Dallas, from which he received his doctor of medicine degree in 1911. He served an internship at Baylor Hospital, Dallas, and later did postgraduate

DR. THOMAS N. DYSON

work at Cook County Hospital, Chicago. Dr. Dyson practiced in a number of places during his career, including Dallas, Amarillo, El Paso, San Antonio, and Austin, Texas; Mexico, New Mexico, and Colorado. He was in government service while in Colorado and New Mexico and was on the staff of Texas state hospitals in Austin and San Antonio from 1941 to 1943. Since 1944 he had been in private practice in San Antonio.

Throughout most of his professional career Dr. Dyson was a member of the State Medical Association and American Medical Association through the society of the county in which he was residing. He was a lifelong Baptist.

Dr. Dyson is survived by his wife, the former Mrs. Iva J. Solomon Watson, whom he married May 20, 1926, at Kyle. Also surviving are four sons by a former marriage, Herman, Herbert, Carey, and Thomas N., Jr., all of Dallas; two half brothers and two sisters.

Dr. Lawrence Larry Keller died March 2, 1948, at his home in Dallas, Texas, of general peritonitis following a ruptured gallbladder, with carcinoma of the bile duct as a contributing factor.

The son of Mr. and Mrs. Leonard Keller, Dr. Kel-

ler was born June 4, 1886, in Brooklyn. He attended public school in New York and the University of Nashville, Nashville, Tenn. He received his medical degree from the University of Tennessee, Memphis, in 1913, and did postgraduate work at the University of Dijon in France. Dr. Keller served his internship at the City Hospital, Memphis. He then moved to Dallas, where he was in private practice for twenty-six years. Two years ago he became associated with the Veterans Administration.

Dr. Keller had been since 1922 a member of the State Medical Association and American Medical Association through Dallas County Medical Society. He was a member of Alpha Kappa Kappa medical fraternity. He was also a member of the Elks Club. He was a first lieutenant with the Army Medical Corps during World War I, was wounded in the Battle of the Argonne, and was decorated for valor.

Dr. Keller is survived by his wife, the former Miss Irene Meadows, whom he married October 12, 1915, in McMinnville, Tenn., and two sons, William L. Keller and John M. Keller, Dallas. His eldest son, L. L. Keller, Jr., was killed in a raid over Germany in 1943.

Dr. Thomas Luther Goodnight died February 9, 1948, at his home in Caldwell, Texas, of multiple myeloma.

Born May 19, 1888, at Holland, Texas, Dr. Goodnight was the son of Mr. and Mrs. Tom W. Goodnight. He attended the Holland public school and was graduated from the University of Louisville School of Medicine, Louisville, Ky., in 1912. After serving a one year internship at King's Daughters Hospital, Temple, Dr. Goodnight began practice in Caldwell, where he was active until shortly before his death. Dr. Goodnight had taken postgraduate

DR. THOMAS L. GOODNIGHT

work at Tulane University, New Orleans, and at the Post Graduate School of Medicine, New York.

Dr. Goodnight had been a member of the Burleson County Medical Society, State Medical Association, American Medical Association, and Southern Medical Association throughout his professional career. He was president of the Burleson County Society from 1934 through 1947. He was county health officer from 1932 until his death. He was local physician and surgeon for the Santa Fe and Southern Pacific Railroads. During World War I, Dr. Goodnight served as a captain in the Army Medical Corps at Archangel, Russia, and during World War II he was on the Selective Service board. He was a member of the Baptist Church, Masonic Order, Shrine, American Legion, and Veterans of Foreign Wars for which he was post surgeon. Dr. Goodnight is reported to have delivered more than 2,500 babies in Burleson County without losing a single mother, though most of the deliveries were done without hospital facilities.

On October 17, 1922, in Caldwell, Dr. Goodnight married Miss Laurinda Windel. He is survived by his wife and one son, Thomas Luther Goodnight, Jr., both of Caldwell; two brothers, Ollie Goodnight, Dallas, and Joe Goodnight, Holland; and one sister, Mrs. Annie Burns, Dallas. A daughter, Laurinda, died in 1935.

Dr. Gilbert Cole Herndon, San Antonio, Texas, died February 6, 1948, from injuries received in an automobile accident.

Dr. Herndon was born September 19, 1911, at Temple, the son of Gilbert and Jewel Herndon. He received his academic education at North Texas Agricultural College, Arlington, and was graduated in medicine at Baylor University College of Medicine, Dallas, in 1935. From the time of his graduation until the latter part of 1936, Dr. Herndon served as an intern and resident in the South Baltimore General Hospital, Baltimore; St. Vincent's Hospital, Jacksonville, Fla.; and Hendrick Memorial Hospital, Abilene. He was in private practice in Haskell and Abilene during 1937 and 1938, and then moved to Fort Worth to practice until called into

DR. G. COLE HERNDON

military service in 1940. Dr. Herndon was on duty three years in Kodiak, Alaska, and several months in India and Burma. He was discharged from the Army in September, 1945, and was in practice in San Antonio from that date until his death.

While Dr. Herndon was in practice in Texas, he was a member of the State Medical Association and American Medical Association through the Taylor-Jones, Tarrant, and Bexar Counties Medical Societies successively. He was a member of the Episcopal Church, Theta Kappa Psi medical fraternity, and the Army Reserve Corps.

Surviving Dr. Herndon are his wife, the former

Miss Ruby Shaw, whom he married in Haskell; two children, Michael Gilbert and Mary Ann; two sisters, Mrs. Jewel Baumgartner, Sapulpa, Okla., and Miss Corinne Herndon, Austin; one brother, Milton Herndon, Dallas; and his father and stepmother, Mr. and Mrs. Gilbert Herndon, Dallas.

Dr. George Townsend Lee, Galveston, Texas, died January 25, 1948, of a cerebral hemorrhage.

Born October 27, 1895, in Galveston, Dr. Lee was the son of Dr. George Henderson and Daisy (Townsend) Lee. After his graduation from Ball High School, Galveston, he attended Washington and Lee University, Lexington, Va., for two years, returning to Texas to complete his bachelor of arts and doctor of medicine degrees at the University of Texas in Austin and Galvestin in 1920. For the next two years, Dr. Lee served internships at Lying-In Hospital and Bellevue Hospital, New York, and St. Mary's Hospital, Brooklyn. He then became associated in practice with his father, who was on the staff of the University of Texas Medical Branch, and continued that association until the death of the elder Dr. Lee in 1932. In addition to his private practice, which continued from 1922 until his death, Dr. Lee was an instructor in medicine at the University of Texas during 1922 and a member of the Department of Gynecology and Obstetrics from 1923 until 1941, at

DR. GEORGE T. LEE

which time he held the rank of associate professor. He was on the staff of St. Mary's Infirmary from 1922 until his death, serving as president of the staff several times. At the time of his death he was chairman of the executive committee.

Dr. Lee had held continuous membership in the Galveston County Medical Society, State Medical Association, and American Medical Association since 1923. He was president of the county society in 1939 and 1940. He was a member of Alpha Omega Alpha honorary medical fraternity, Alpha Mu Pi Omega medical fraternity, Phi Kappa Psi fraternity, Trinity Episcopal Church, Rotary Club, Bayou Club, and Galveston Boat Club. During World War I he was in the Reserve Officers Training Corps.

Surviving Dr. Lee are his wife, the former Miss Marie Louise Talmage, whom he married December 6, 1920, in Amarillo; one daughter, Miss Patsy Talmage Lee; and two sisters, Misses Emma and Cora Lee, all of Galveston.

Dr. Frank Alonzo White, Childress, Texas, died in his office January 24, 1948, of coronary occlusion.

Born December 27, 1871, at Nelta, Texas, the son of Washington Willis and Julia Ann (Hudson) White, Dr. White attended the public schools at Nelta and old Henry College, Campbell, from which he received a bachelor of literature degree in 1900. His medical education was secured at the University of Louisville, Louisville, Ky., from which he was graduated in 1904. Dr. White taught school for two terms in 1898 and 1900 in Adran, and he practiced medicine for short periods prior to his graduation from medical school in Nelta. August 4, 1905, Dr. White opened his practice in Sulphur Bluff,

DR. F. A. WHITE

where he remained until 1919. He then took postgraduate work in eye, ear, nose, and throat at Tulane University, New Orleans, and in 1920 began the practice of that specialty in Sulphur Springs. He moved to Childress in 1927 and was in practice there until his death.

Throughout his professional life Dr. White was a member of the State Medical Association and American Medical Association, first through Hopkins County Medical Society, then through Childress-Collingsworth-Hall Counties Medical Society, and upon its organization through Armstrong-Donley-Childress-Collingsworth-Hall Counties Medical Society. He was also a member of the Panhandle District Medical Society, and had served both his county society and the district society as president. He was secretary of the Hopkins County Medical Society from 1920 until 1927. He was a member of the Texas Society of Ophthalmology and Otolaryngology, and local physician for the Fort Worth and Denver Railroad from 1927 until his death. He was a member of the Rotary Club and a Scottish Rite Mason. Dr. White had long been active in Boy Scout work, first becoming interested in Scouting in 1913, three years after the Scout movement was started in England. He organized the first Boy Scout group in North Texas and in 1938 received the Silver Beaver Award for distinguished service. He was a member of the Methodist Church and taught a men's Bible class.

On April 16, 1902, Dr. White married Miss Mary S. Alverson in Nelta. He is survived by his wife and one son, Cecil Thayer White, Washington, D. C.

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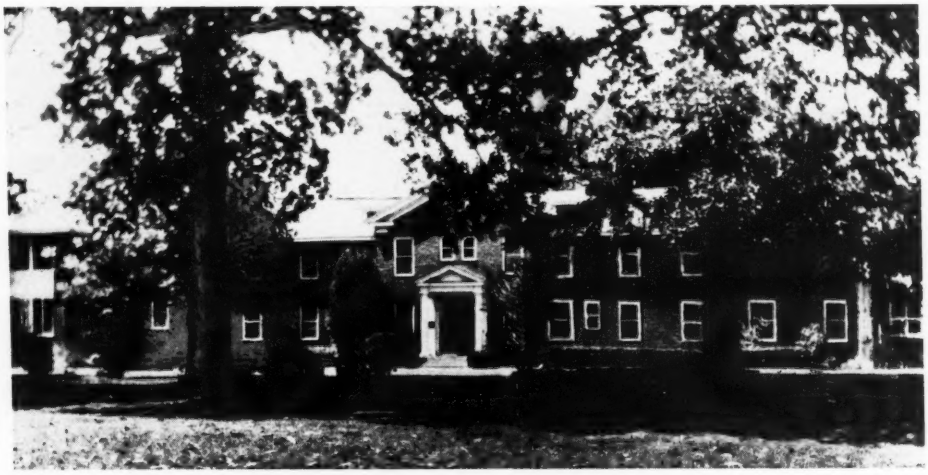

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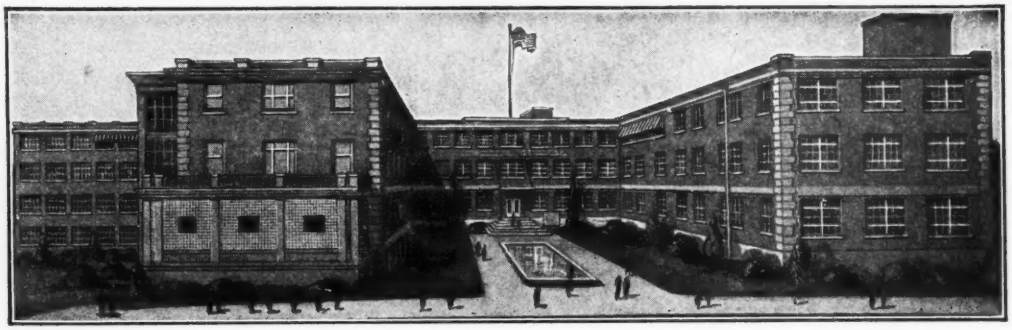

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